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Products, News & Information Data Centers Can Trust. Since 1979

In This ISSUE

COVER FOCUS:

Spotlight On Smaller Manufacturers

We highlight smaller manufacturers you need to be aware of in several key areas.

HVAC & Environmental Monitoring 1
VPN & Encryption 9
Backup Products & Services 11
Data Center Design Services 12

TECH & TRENDS

Netbooks: A Reasonable Business Option? | 1

Although netbooks' primary target purchaser has been consumers, especially younger, more mobile users, enterprises are beginning to taking a serious look at these small, yet powerful machines.

Information Management: Reduce, Reuse, Recycle | 18

Reduce, reuse, and recycle is a common battle cry for those who want a greener world. This same call is now quite commonly being applied within corporations with regards to the management of the ever-growing expanse of corporate information.

Web-Based Malware: Is Your Enterprise At Risk? | 19

Security administrators responsible for protecting the information and system resources of their SMEs will find little surprise (and even less comfort) in news that the number of computer viruses discovered, as well as the number of systems infected, increased in 2008 over years past.

Cloud & Virtualized System Challenges | 20

"The cloud" has enough ambiguity that it can mean dramatically different things to different people.

NEWS

■ **UIQ Technology,** maker of the UIQ interface for Symbian-based mobile phones, filed for bankruptcy in late December and is likely to shut down operations. .....page 4

■ **The ITRC** (Identity Theft Resource Center) recently reported that more than 35 million data records were breached in 2008 .....page 4

■ **Tata Consultancy Services** and Wipro Technologies, two India-based outsourcing groups, have announced separate plans to purchase parts of Citigroup.....page 4

■ **Rumors surrounding** Apple's CEO Steve Jobs were recently addressed in a public letter from Jobs to Apple fans and investors. .....page 4

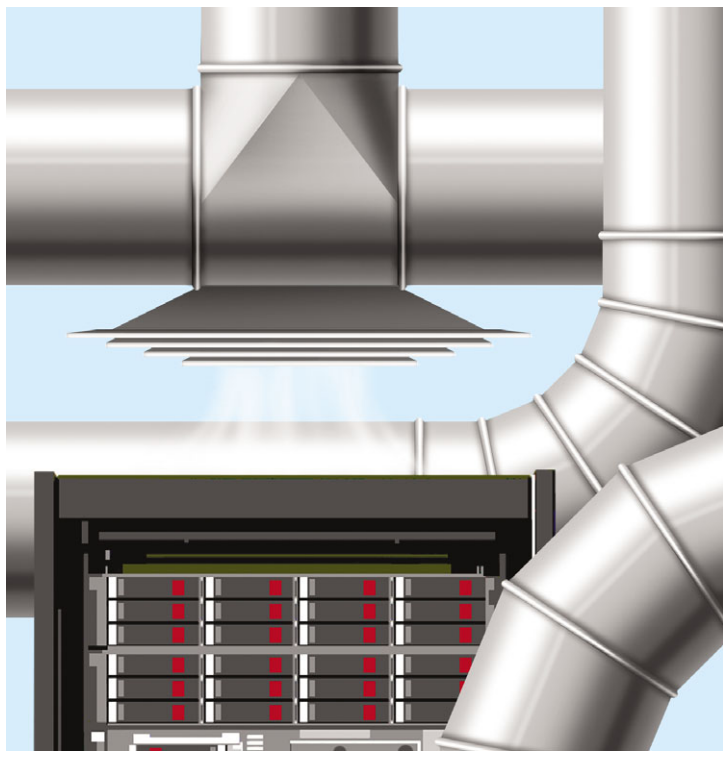
■ **The new Obama administration's** proposed economic stimulus plan could create hundreds of thousands of new IT jobs, according to analysts .....page 12

EACH WEEK

MarketPlace News 4
Upcoming IT Events 4
Products At Work 5
Product Of The Week ..14
Product Releases 15
How To 21
Six Quick Tips.....22
What's Happening.....23
Three Questions 23

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HVAC & Environmental Monitoring



Offerings From Lesser-Known Vendors Can Pay Huge Dividends

by Carmi Levy

• • •

Data center managers looking for more precise tools to monitor and manage their operations have never had more choices. With C-level executives pressuring everyone in the organization to identify opportunities to reduce cost, as well as risk, vendors that specialize in HVAC and environmental monitoring are increasingly being sought out for answers.

AVTECH Software

When protecting your data center facilities, great hardware can only take you so far. Great software takes remote monitoring of the data center environment to the next level.

To reinforce the importance of code, AVTECH, a leading manufacturer of IT and facilities environment monitoring equipment (www.avtech.com), bundles licenses for its PageR Enterprise and Device ManageR software with every environmental monitoring purchase.

PageR Enterprise provides a central event console that consolidates event information from a wide range of devices over local and global networks. Flexible notification tools allow the right people to be immediately contacted. Device ManageR automatically discovers, manages, logs, and graphs AVTECH devices across the network.

"AVTECH's objective is to make the monitoring and management of important facilities easier by providing powerful, easy-to-use hardware and software solutions that save organizations time and money while improving operational efficiency and preparedness and providing outstanding customer service and satisfaction," says Michael Sigourney, AVTECH founder and senior product specialist. "AVTECH is often referred to as one of the fastest-growing companies you never heard of . . . until you need IT and facilities environment monitoring."

AVTECH's solutions can monitor a broad range of environmental factors, including temperature, humidity, power, water/flood, smoke/fire, room entry, airflow, sound, and light. The company includes unlimited tech support, free replacement of failed products, and a commitment to ensuring that a real person will answer the phone within two rings. In a down economy, support like this is vital.

"Proactively monitoring the environments where expensive equipment is housed and being able to take automatic correct action if and when an issue or event does occur can save organizations tens to hundreds of thousands of dollars in lost

Go to Page 10

Netbooks

Are They A Reasonable Business Option?

by Sandra Kay Miller

• • •

Although notebook PCs overtook desktops as the computing machine of choice in 2008, global technology company Asus alone expects to sell more than 7 million netbooks in 2009. Fairly new to the portable computing scene, there are also a handful of other manufacturers introducing these pared-down, inexpensive mini-laptops. Amazon reported that many of its top-selling laptops in 2008 were actually netbooks.

Although netbooks have been targeted primarily at consumers, especially younger, more mobile users, enterprises are beginning to take a serious look at these small, yet powerful machines. Annette Jump, research director at Gartner, estimates that by 2012, as many as 50 million netbooks will be sold; however, the bulk of these sales will be primarily for consumers and not the enterprise. "Potential netbook buyers will most likely be those looking for an inexpensive introductory PC or experienced users looking for a second or third computer."

What might make netbooks attractive to the enterprise is the price tag because they start at around $300. At a fraction of the cost for traditional laptop and desktop machines, organizations that have an existing Web-based infrastructure can deliver a more cost-effective platform for accessing corporate resources.

Jump doesn't expect netbook sales to replace the enterprise laptop market immediately but believes that within a few years, they could begin to replace lower-end laptops.

Netbooks typically run either Microsoft Windows XP or Linux as the base operating system. For enterprises that have tried to stave off upgrades to Vista, these petite machines are offering an extended shelf life of the stable and secure WinXP OS.

Losses & Gains

Think of netbooks as laptops on a diet—lose the weight. In order to shed extra ounces to achieve a svelte 2 to 3 pounds, some things have to go. First and foremost: the display. Screen sizes range from 7 to 12 inches and often lack the antiglare properties of larger laptops. Smaller displays may only offer as little as 800- x 480-pixel resolution, but as the physical size increases, so does the resolution. Larger netbooks can deliver as much as 1,024 x 600.

The keyboards have as much as a quarter of their size shaved off, yet are still much more functional than the micro thumb keys on handheld devices. Andy Tung, director of U.S. sales for MSI, explained that while the competition has focused on smaller displays and keyboards, MSI is sticking with larger versions. He notes, "Feedback from our customers has shown that people want bigger keyboards and displays."

With onboard Wi-Fi and USB ports supporting an endless number of peripherals, slimming down the profile has meant

Go to Page 10

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1. **What is the size of your company (how many employees)?**
   - ☐ Less than 10
   - ☐ 10 to 99
   - ☐ 100 to 199
   - ☐ 200 to 499
   - ☐ 500 to 999
   - ☐ 1,000+

2. **How often do you purchase computer hardware/software?**
   - ☐ Weekly
   - ☐ Bi-weekly
   - ☐ Monthly
   - ☐ Quarterly
   - ☐ Annually
   - ☐ No Involvement

3. **What is your annual computer hardware/software purchasing budget?**
   - ☐ $0 to $9,999
   - ☐ $10,000 to $24,999
   - ☐ $25,000 to $49,999
   - ☐ $50,000 to $99,999
   - ☐ $100,000 to $249,999
   - ☐ $250,000 to $499,999
   - ☐ $500,000 to $999,000
   - ☐ $1,000,000+

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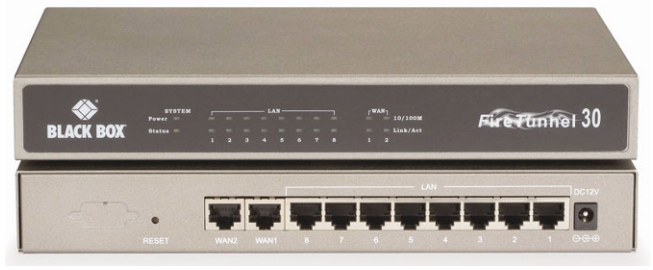
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FireTunnel 30 (LRE1030E): $325.95

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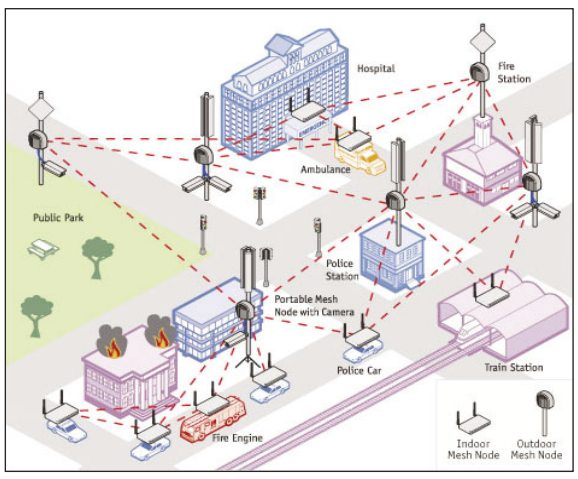
FireTunnel from Black Box® is a complete Internet access appliance, combining everything you need to establish a secure Internet connection in one device.

Consisting of a VPN, firewall, integral broadband router, and an 8-port 10/100Mbps Ethernet switch, the FireTunnel uses comprehensive IPsec VPN protocols to establish encrypted tunnels across the Internet. Remote network users can link to your network without worrying about eavesdropping, making the FireTunnel perfect for connections to branch offices or employees who work from home. It's the quick and easy way to securely connect a small office to the Internet by DSL or cable.

FireTunnel includes a capable stateful inspection firewall with URL and port blocking. DoS protection keeps your networks from being overwhelmed by a denial-of-service attack. It can even be configured to email you if your network comes under attack.

Two models are available: FireTunnel 10 offers a firewall and support for up to 10 VPN tunnels; FireTunnel 30 offers a firewall, support for up to 30 VPN tunnels, and load balancing across two WAN connections. Both can act as VPN concentrators, too, enabling multiple remote users to securely connect to each other through the FireTunnel in a small office or home office application.

FireTunnel is the quick and easy way to connect and protect your network—in one convenient package.



Firetide's HotPort 6000 wireless mesh nodes and HotPoint 4000 wireless access points enable standalone wireless networks.

HotPort 6000 mesh nodes: $1,295 to $2,995; HotPoint 4000 access points: $395 to $995

(408) 399-7771

www.firetide.com

Standalone Wireless Networking

Firetide HotPort 6000 & HotPoint 4000

If there is anything better than reliable alarm monitoring and response supervision technology, it's the wireless version of those abilities. Companies and individuals in a variety of fields, such as emergency services and security, would benefit from the ability to wirelessly receive and act on alarms. A new wireless system of this nature has been developed by Digitize using wireless mesh technology from Firetide.

Firetide's technology facilitates a cost-effective, rapid deployment and easy installation, enabling employees to set up a standalone network without the need for IT personnel. The networks operate in the 2.4GHz, 4.9GHz, and 5GHz frequency ranges. Firetide HotPort 6000 mesh nodes and HotPoint 4000 access points are equipped with HotView network management software and Firetide WLAN Controller software, respectively, and feature WPA2 (Wi-Fi Protected Access 2), WEP (Wired Equivalent Privacy), and AES encryption for security, as well as a proprietary encapsulation technology.

The Firetide HotPort 6000 wireless mesh nodes and HotPoint 4000 wireless access points come in both indoor and outdoor versions, enabling users to set up a network in virtually any location.

In addition to being cost-effective, the networks are self-contained and easily repositioned, so users can adjust to their changing needs on the fly.

firetide™

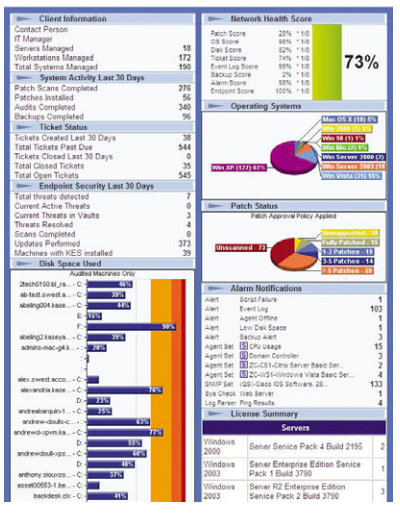
Remote IT Automation, Simplified

Kaseya Endpoint Security & Backup And Discovery Modules

In tough economic times, optimizing IT resources is crucial to business success. With automation, companies can deploy solutions quickly and efficiently. Kaseya's answer to these issues is in the latest versions of its KES (Kaseya Endpoint Security) and BU-DR (Backup and Disaster Recovery) modules. The new modules are designed to simplify remote IT automation with seamless endpoint security, instant virtualization, and real-time disaster recovery.

The two modules provide different functionality. The KES module, integrated at the user-interface level and the database level with all other parts of Kaseya's IT automation software suite, lets users automate IT management without sacrificing full visibility. Users can keep an eye on all deployment, configuration, status, and operations of end-point security from a single Web-based console. KES provides seamless operation and management of antivirus, antispyware, and rootkit protection for Microsoft OS-based servers, workstations, and mobile computers.

Features of the BU-DR module include Incremental Forever and Synthetic Full Backups as well as Instant Virtualization. The backup functionality is designed to offer efficient offsite replication and user-defined archival capabilities. Features of Instant Virtualization include the ability to remotely and automatically convert any backup to a VMware, ESX, or Virtual PC virtual disk. To make the restoration process less painful and recover files and folders in real time, users can set up a virtual environment and quickly have a key system up and running.



Kaseya Endpoint Security 2.0 and Backup and Disaster Recovery 3.0 simplify remote IT automation.

(415) 694-5700

www.kaseya.com

Kaseya

SECURITY JANUARY 2, 2009



plusID identity verification tokens work with existing door readers for an easy upgrade to the heightened security of biometrics.

(434) 293-4033

www.Privaris.com

PRIVARIS®

Easily Add Biometric Security To Your Data Center

Privaris plusID Personal Identity Verification Token

Data centers require "proof-positive" identity verification to properly secure the enterprises' valuable assets. But most biometric access control solutions entail the costly and complex installation of specialized readers and modifications to backend systems.

The plusID personal identity verification token from Privaris offers an easy and cost-effective path to the heightened security of biometrics — without ripping and replacing equipment or installing specialized access control software. plusID works with your existing door readers for rapid enterprise deployment. Simply issue authorized staff a plusID token in place of a standard access card to provide them with a secure credential that only they can use.

plusID outputs a standard card signal only after its rightful owner matches their live fingerprint to the print securely enrolled and stored on their device. The only installation required is the issuance of a new card number in your existing PACS (physical access control system).

Once inside the data center, the multi-function plusID also supports logical/IT access for secure logon to PCs and laptops — no need for backend systems or specialized middleware. All of the biometric processing happens on the device.

plusID puts the convenience of biometric processing directly in the hands of its user, eliminating the organization's liability for maintaining and securing biometric databases.

STORAGE DECEMBER 19, 2008



Barracuda Backup Service Integrates Local & Secure Offsite Backup For Disaster Recovery

Starts at $99 per month

(888) 268-4772

www.barracudanetworks.com

BARRACUDA NETWORKS

Get Onsite & Offsite Backup

Barracuda Backup Service

The Barracuda Backup Service is an affordable, integrated local and offsite data backup and disaster recovery solution that combines an onsite appliance with a monthly subscription that replicates data to two offsite locations. Combining local and offsite storage provides the best of both worlds—onsite backups for the fastest restore times and secure, offsite storage for disaster recovery.

Designed for organizations of any size, the Barracuda Backup Server creates a local copy of data and efficiently transfers the data offsite without any additional burden on production servers. Offsite storage is monitored and managed by Barracuda Central as part of the Barracuda Backup Subscription, and tech support and emergency restores are included, as well.

Deployed in varied, complex IT environments, the Barracuda Backup Service protects mission-critical business information, utilizes industry-standard networking protocols to access data for backup, and is compatible with all major operating systems.

The Barracuda Backup Service Web control panel makes it easy to manage and back up data to multiple units at one or more locations—from anywhere. It also provides control of settings, reports, restores, statistics, and account information in order to manage Barracuda Backup Servers and Barracuda Backup Subscription plans. In addition, customers receive automated alert notifications via the Web control panel when conditions affecting backup service are detected.

NETWORKING & VPN DECEMBER 19, 2008



I'm InTouch SecurePC & SecureKEY prevent data loss and unauthorized access to your workstations while allowing your employees fast and secure remote control of their computers from anywhere.

(800) 668-2185

www.imintouch.com/secure

Protect Your Business Against Data Breaches From Lost Laptops

I'm InTouch SecurePC & SecureKEY

Allowing employees to take company laptops containing confidential information outside the office is a security risk. If the laptop is lost or stolen, the data on the laptop is compromised and could fall into the wrong hands. Instead, use the I'm InTouch SecurePC and keep your data safely behind your corporate firewall.

The SecurePC remote access terminal allows businesses to provide their employees with all the freedom of laptops without the security risks. Instead of storing their work on a laptop, employees can use the SecurePC to remotely control their office workstation from anywhere over the Internet using 01 Communique's I'm InTouch Premium remote access solution. No files can be saved to SecurePC, ensuring no data leaves the safety of the corporate network.

For even more security, add the SecureKEY physical authentication USB device to prevent unauthorized remote access to company workstations. Only a computer with an employee's personal SecureKEY inserted into its USB slot can be used to remotely access the employee's workstation in the office. Even if the employee's remote access login password were compromised, unauthorized access would not be possible because the SecureKEY would not be present.

By combining the SecurePC, SecureKEY, and I'm InTouch Premium solution, businesses can deploy an incredibly secure remote access platform quickly and cost-effectively, without any performance sacrifices.

01 COMMUNIQUE

SECURITY DECEMBER 5, 2008



DNF Security JetX portable surveillance systems are designed for use in rugged environments.

Starts at $7,336 for an entry-level system with single display

(800) 947-4742

www.dnfsecurity.com

Portable Surveillance Gets Rugged

DNF Security JetX

Portable surveillance is a powerful way to maintain security in rough environments. Whether it's a construction site in a remote location or the scene of an emergency, portable surveillance provides crucial help when it's needed most. DNF Security's JetX surveillance solution is ideal for mobile, offsite monitoring and recording.

The series of devices includes three models with rugged systems designed to work in severe conditions with no interruption. The units each have one 15-inch or three 17-inch high-resolution LCD displays and an open platform for better compatibility with equipment such as cameras and video management software.

The triple-screen systems support up to 3TB of storage. All JetX systems feature a built-in high-resolution display, integrated keyboard and touchpad, and a rolling carrying bag.

The JetX M-Powered product features a battery-powered system designed to provide long-lasting power in off-road applications and is also available in hybrid editions. The hybrid editions support up to 32 analog and eight IP cameras. Single-display JetX systems feature 2TB of internal storage capacity and a dual-core Xeon processor.

DNF SECURITY
DYNAMIC NETWORK FACTORY

News

UIQ Files For Bankruptcy

UIQ Technology, maker of the UIQ interface for Symbian-based mobile phones, filed for bankruptcy in late December and is likely to shut down operations. Motorola and Sony Ericsson jointly own UIQ; however, Motorola recently announced it will move away from Symbian in favor of using a Linux OS, Google's Android, and Windows Mobile in its phones, while Sony Ericsson will use Windows Mobile and Symbian. Most Symbian-based smartphones use the Series 60 interface rather than UIQ. Nokia purchased Symbian in mid-2008 and is transforming it into an open-source, royalty-free OS that combines features of UIQ, S60, and the Mobile Oriented Applications Platform. About 230 UIQ employees are expected to lose their jobs.

Study: Data Breaches Climbed Significantly In 2008

The ITRC (Identity Theft Resource Center) reported that more than 35 million data records were breached in 2008, with the majority of data breached lacking encryption or password protection. That actual total of breaches, however, is believed to be much higher due to differences in how companies are required to report data breaches according to state laws. Using media reports and business disclosures, the ITRC cited 656 breaches for 2008, up 210, or 47%, from 2007. Forms of breaches included hacks, notebook thefts, and employee-related data loss. The business sector accounted for about 36.5% of the 656 total. Government and military organizations were responsible for 16.8% of breaches, while insider theft was blamed for 15.7% of breaches, more than doubling 2007's total. Of the data breached, only 2.4% was protected by encryption and only 8.5% was protected by passwords.

Indian Firms Buy Parts Of Citigroup

Tata Consultancy Services and Wipro Technologies, two India-based outsourcing groups, have announced separate plans to purchase parts of Citigroup, which is selling some assets in an effort to be better focused on its core business. Wipro will buy Citi Technology Services, which provides technology infrastructure services, for $127 million in a deal expected to close in March. Wipro and Citi also announced a six-year, $500 million outsourcing contract. In related news, Tata Consultancy Services completed its $512 million purchase of Citigroup Global Services, which provides customer support and other services. With both deals, some Citigroup employees will transfer to jobs at either Tata or Wipro.

Microsoft Made $1.5 Billion During Disputed Vista Campaign

Microsoft raked in more than $1.5 billion during its nine-month Vista Capable campaign, according to economist Keith Leffler. Leffler's estimate, which measures Windows XP licensing revenue from computers marked Vista Capable but not Vista Premium Ready, was presented as expert testimony for the plaintiffs in a class-action lawsuit accusing Microsoft of deception in its April 2006 to January 2007 Vista Capable campaign. The campaign marked PCs supporting only the most basic edition of Vista as Vista Capable leading up to the operating system's release; a separate campaign marked computers supporting all versions as Vista Premium Ready. Plaintiffs claim the Vista Capable label artificially inflated demand and prices for computers only able to support the most basic Vista edition.

Semiconductor Sales Plunge In November

Worldwide semiconductor sales slumped even further in November, according to the SIA (Semiconductor Industry Association). While overall sales for the first 11 months of last year topped 2007's results by 0.2%, November's sales were $20.8 billion, down 9.8% from November 2007. Memory products took the greatest hit; excluding them, January-to-November sales would have increased 5.6% rather than 0.2%, and the year-over-year decline would be nearly halved to 4.8%. Year-over-year sales suffered most in the Americas with a 19.5% drop. Despite falling sales and the overall economic climate, the SIA expects the semiconductor industry to remain the second-largest exporter in the United States for this year, says association President George Scalise.



Former IBM President Dead At 76

Jack D. Kuehler, early IBM systems executive, died from Parkinson's disease on Dec. 20 in Racho Santa Fe, Calif., at the age of 76. He worked as IBM's highest-ranking technologist during the late 1970s and early 1980s and organized critical alliances for IBM with companies such as Intel, Apple, Motorola, and Hitachi. He also played a vital role in the formation of Sematech for the U.S. semiconductor industry. Born in Grand Island, Neb., Kuehler held a B.S. degree in mechanical engineering and M.S. degree in electrical engineering from Santa Clara University. After starting his career as an associate engineer at IBM, Kuehler advanced to multiple positions before being made president in 1989 and serving two terms as vice chairman of the Board of Directors. He retired in 1993.

Steve Jobs Comments On Health Status

Rumors surrounding Apple's CEO Steve Jobs were recently addressed in a public letter from Jobs to Apple fans and investors. In his statement, he explains his declining health and personal decision to forgo his Macworld keynote address, saying that his progressive weight loss throughout 2008 prompted him to undergo testing, which showed that a hormone imbalance had "robbed" him of vital proteins that his body requires to remain healthy. He will continue his position as Apple's CEO while he recovers. Apple's Board of Directors voiced its support for Jobs' recuperation and commitment to the Apple community.

Web Browsers Fail Flash Privacy Test

Web sites have long used cookies to track user identities, but today's browsers are designed to give users more control over their privacy—including control over cookies. However, according to a study from iSec Partners, the average user would find it difficult to delete Flash cookies in Firefox, Chrome, Internet Explorer, and Safari. Many popular Web sites, including MySpace, Hulu, and Amazon, create cookies with Adobe's Flash, and the user would need to perform a separate process to delete the Flash cookies. The study found that Safari was the least secure of the four Web browsers and that Safari was less secure on Windows, because it didn't clear any data before entering or exiting private mode, than it was on Apple's OS X.



VeriSign Drops Vulnerable Digital Certificate Algorithm

Soon after researchers at the Chaos Communication Congress demonstrated a practical way to issue a false SSL digital certificate based on MD5, VeriSign announced that its RapidSSL certificate issuance program would no longer use the cracked hashing algorithm. Instead, the company will use the more robust SHA-1 and will reissue secure certificates free of charge to its affected customers. The researchers demonstrated a vulnerability in which digital certificates—which most e-commerce and banking Web sites regularly use to protect data sent online—could allow hackers to redirect users to forged sites that feature the SSL padlock symbol. Because visitors would believe their Web browser is still secure, they would feel safe about entering usernames, passwords, and other sensitive information. VeriSign says that the MD5 flaw did not compromise existing digital certificates, as the attack required the generation of a new certificate that would masquerade as a legitimate one. MD5 was initially slated for replacement at the end of January.

Intel Releases Lackluster Q4 Preliminary Results

Despite the launch of the long-awaited Core i7 Nehalem processor family, Intel's revenue dropped by 20% in the fourth quarter and by 23% year-over-year, according to revised preliminary estimates from the company. Losses will total $1.1 to $1.2 billion on revenues of about $8.2 billion. A non-cash charge owing to devaluation of Clearwire stock is to blame for most of the loss, with weak end-user demand and supply chain inventory reductions affecting results, as well. The company also cut back its spending to $2.6 billion, about $200 million less than expected.

WATCH THE STOCKS

This information provides a quick glimpse of current and historical stock prices and trends for 14 major companies in the technology market.

Company	Symbol	Year Ago	Jan. 2 $	Jan. 9 $	% change from previous week
AMD	AMD	$5.53	$2.38	$2.69	▲ 13.03%
Computer Associates	CA	$22.61	$18.90	$18.42	▼ 2.54%
Cisco Systems	CSCO	$26.24	$16.96	$16.70	▼ 1.53%
Dell	DELL	$20.93	$10.75	$11.12	▲ 3.44%
Google	GOOG	$653.20	$321.32	$315.07	▼ 1.95%
HP	HPQ	$44.44	$36.81	$37.49	▲ 1.85%
IBM	IBM	$98.31	$87.37	$84.70	▼ 3.06%
Intel	INTC	$22.75	$15.20	$14.15	▼ 6.91%
McAfee	MFE	$32.29	$34.64	$31.38	▼ 9.41%
Microsoft	MSFT	$34.44	$20.33	$19.52	▼ 3.98%
Oracle	ORCL	$21.61	$18.41	$17.36	▼ 5.7%
Red Hat Software	RHT	$19.95	$13.99	$15.46	▲ 10.51%
Sun Microsystems	JAVA	$15.66	$4.22	$4.66	▲ 10.43%
Symantec	SYMC	$15.59	$14.80	$13.60	▼ 8.11%

NOTE: This information is meant for reference only and should not be used as a basis for buy/sell decisions.

Upcoming IT Events

Are you looking to learn more about data center or IT topics? Network with some of your peers? Consider joining a group of data center professionals. If you don't see a meeting listed in your area, visit www.afcom.com, www.aitp.org, or www.issa.org to find a chapter near you.

- JANUARY -

AITP Pittsburgh
Jan. 19, 6 p.m.
Sokol Club-Southside
2912 E. Carson St.
Pittsburgh, Pa.
www.aitp-pgh.org

Oklahoma City AITP Chapter
Jan. 20
Oklahoma City, Okla.
www.aitp.org/organization/chapters/chapterhome.jsp?chapter=40

Florida Educational Technology Conference
Jan. 21-24
Orlando, Fla.
www.fetc.org

ISSA Oklahoma City
Jan. 21
Spaghetti Warehouse
101 E. Sheridan Ave.
Oklahoma City, Okla.
www.issa-okc.org

Gartner CIO Leadership Forum
Jan. 25-27
Palm Springs, Calif.
www.gartner.com/it/page.jsp?id=770919

ISSA Des Moines
Jan. 26, 11:30 a.m.
1401 50th St., Suite 200
West Des Moines, Iowa

AITP Akron
Jan. 27, 6 p.m.
Lindsay's Amber Restaurant
1500 Canton Road
Akron, Ohio
www.akron-aitp.org/index.htm

ISSA Baltimore
Jan. 28, 4:30 p.m.
Sparta Inc.
7110 Samuel Morse Drive
Suite 200
Columbia, Md.
www.issa-balt.org

- FEBRUARY -

AFCOM St. Louis "Gateway" Chapter
Feb. 10
Schneider Electric Technology Center
807 Corporate Centre Drive
O'Fallon, Mo.
www.afcom.com/afcomnew/stlouis.html

Greater Kansas City AFCOM
Feb. 10
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Feb. 16, 6 p.m.
Sokol Club-Southside
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Oklahoma City AITP Chapter
Feb. 17
Oklahoma City, Okla.
www.aitp.org/organization/chapters/chapterhome.jsp?chapter=40

ISSA Oklahoma City
Feb. 18
Spaghetti Warehouse
101 E. Sheridan Ave.
Oklahoma City, Okla.
www.issa-okc.org

AITP Omaha
Feb. 19, 5:30 p.m.
Seraph Corp.
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PRODUCTS AT WORK

Better Care & Attention

Boiling Springs Bank Relies On Comodo EV SSL To Protect Its Customers

by Robyn Weisman

• • •

RUTHERFORD, N.J.,-BASED Boiling Springs Savings Bank has become a rare thing these days: a consumer-oriented institution that focuses primarily on its local customers. "We're a state-chartered savings bank and we have $1.2 billion in assets with 16 branches and 17 locations in northeastern New Jersey," says Ken Emerson, first senior vice president and chief information and technology officer at Boiling Springs Savings. "On the deposit side, we're primarily a retail shop. On the lending side, we offer a straightforward array of mortgage and home equity products, [while] we also have a niche in construction and commercial real estate lending," he says.

One of the bank's greatest strengths is its ability to give its customers better care and attention than the average national bank. But providing excellent customer service online can get sticky, especially when phishing and pharming scams abound.

"The volume of phishing was rapidly ramping up in the 2000s, and I was concerned with our customers and their likelihood of being duped," says Emerson. In a bit of serendipity, Comodo (www.comodo.com) approached Boiling Springs Savings Bank to tell Emerson about its EV (extended validation) SSL Certificates because Comodo was targeting financial institutions in Boiling Springs' vicinity.

"[Comodo] gave us a demo and showed us how easy it was to implement, and we felt it was a simple thing for us to do to protect our customers," says Emerson. "People want to have access to things on a 24-hour basis, but giving them that tends to create problems in that they want access, but they don't want [to spend] a lot of time remembering passwords and protecting themselves. Anything that we can do to help them out in that regard is always beneficial."

Emerson says he didn't look at competing products because Comodo's EV SSL does exactly what Boiling Springs needs it to do. "I certainly did some due diligence and saw that Comodo was a recognized entity worldwide and competed with VeriSign, and we were comfortable with what it was offering," he says.

What EV SSL Does

According to Emerson, Boiling Springs embeds a content verification certificate in various areas of its Web site, such as its logo, rate sheets, and online banking login box. Its customers download Comodo's Verification Engine, which is a small application available on the bank's Web site. Users can then scroll over the aforementioned areas on Boiling Springs' Web site, and the Verification Engine will show them a green banner around their browser screen that tells them they are accessing the authentic Boiling Springs Web site.

Emerson says Comodo's EV SSL works with the major browsers such as Internet Explorer, Mozilla Firefox, and Safari. "I know Comodo has been having discussions with Microsoft and some of the other browser companies to have their verification embedded in the browser itself, so that it's very much like the little lock you see on a Web site when there's an SSL session," says Emerson.

The secret to Comodo's EV SSL effectiveness is Comodo's SVT (see, verify, trust) technology. SVT technology uses X509-compliant technology such as conventional SSL certificates, but unlike SSL certificates, Comodo's EV SSL uses CVCs (content verification certificates) to determine the authenticity of a Web site.

After a merchant determines the content it wants to protect on its Web site, Como-do's CVCs use a proprietary verification process to demonstrate the legitimacy of a business and fully vet it for accepting confidential data. The green banner that shows up when a customer mouses over, say, a Web site logo, guarantees that Comodo has verified the contents and that the user isn't on a spoofed site. And its ability to show all this in real time means that skittish customers don't have to fret about the safety of a given Web site.

Easy To Implement, Easy To Use

Emerson says Comodo's EV SSL is easy to use. Comodo provides a Web site where Boiling Springs can upload its Web site content and have the CVCs embedded into it. "The turnaround time is a couple of minutes. It's really that simple," says Emerson. "Any time we want to do a Web update, we can do so quickly. We change our rates weekly and don't have any real issue with that," he says.

According to Emerson, Boiling Springs Savings has been using Comodo's EV SSL for more than a year. "The price was very reasonable. Comodo bundled it into our two-factor authentication, which, as a package, was much less than [an] alternative available to us at the time. That pricing advantage remains intact, so there is no foreseeable change at this point in time," Emerson says.

Comodo's EV SSL is available as a standalone product, but it also makes up the second part of Comodo's Two Factor Authentication solution, which works to make bank transactions secure by using a two-step authentication process. The first step uses Digital Client certificates to ensure the customer is legitimate and not a hacker. The second step uses EV SSL to prove to the customer that he or she is on the bank's Web site and not a spoofed one.

Digital Client certificates offer bank customers easy, transparent login capabilities and can be used on USB thumb drives, smart cards, and other mobile devices. They're also PKI-based and easy to deploy.

No Regrets

Emerson has no regrets with Comodo's product because it does exactly what it claims to do. "The only thing we're not able to gauge is how many of our customers have actually downloaded the verification application, put it on their computers, and are actively using it," says Emerson. "If I knew what kind of penetration levels I had, that would be a big help, but Comodo says it is working on doing that."

Emerson says that Boiling Springs' ongoing relationship with Comodo has been an additional benefit because Comodo has been so responsive to Boiling Springs' needs. "We worked with [Comodo], and [its people] developed and built a multifaceted authentication product for our online banking, and [we have] helped [the company] to get other financial institutions to sign for [EV SSL], as well," Emerson says.

In addition, Comodo's EV SSL has helped Boiling Springs handle additional regulatory scrutiny of its IT systems in terms of what the bank is doing to be proactive in protecting its customers from phishing, pharming, and other online fraud. "I've been able to successfully say, 'We have this verification engine in place that is there to help the customers protect themselves,'" says Emerson.

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Boiling Springs' ongoing relationship with Comodo has been an additional benefit because Comodo has been so responsive to Boiling Springs' needs.

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"The turnaround time [to embed Comodo's EV SSL product] is a couple of minutes. It's really that simple. Any time we want to do a Web update, we can do so quickly. We change our rates weekly and don't have any real issue with that," says Ken Emerson, first senior vice president and chief information and technology officer at Boiling Springs Savings Bank.

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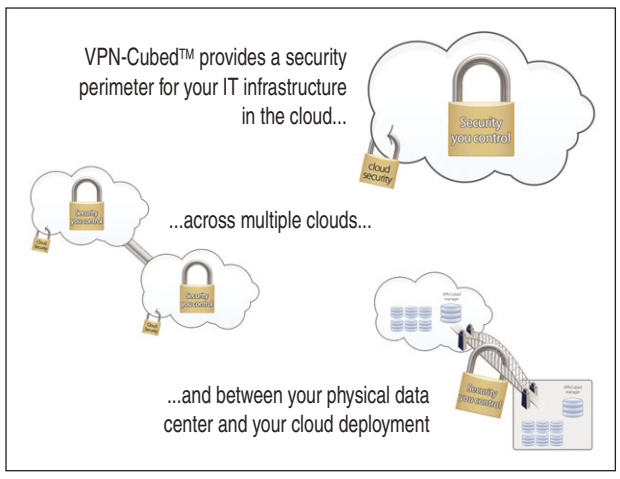
MultiVOIP GSM units equipped with GSM cellular service are placed at facilities worldwide. Calls can be sent to any of those locations using a VoIP network and sent locally to a cell phone over the GSM network.

The new gateway, Model MVPGSM-2, comes with two ports for communicating over a SIP-to-cellular connection and an Ethernet interface for connecting to an IP network. SIP-IP network ends are connected at desired locations using the Ethernet interfaces. The cellular interface of each MultiVOIP GSM is connected to a GSM network by one or two user-supplied SIM cards. IP PBXes also connected to the same IP network are then able to utilize the MultiVOIP GSM to complete calls over the cell networks.

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STORAGE — NOVEMBER 28, 2008



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Features include the ability to implement a large, tiered IP SAN storage system with support for up to 15TB with 1TB SATA drives, expandable up to 240TB. RAID controllers, power supplies, cooling modules, and disk drives are hot-swappable.

Despite the enterprise-level capabilities of the iQstor iQ2850, it's designed to be a low-cost and simple storage system, ideal for companies that need to consolidate multiple servers without the need for specialized host adapters, switches, and cables. Other benefits include integrated data protection features such as volume manager-based storage virtualization, snapshot, mirroring, remote replication, policy-based storage provisioning, capacity expansion, and remote support. Supported platforms include Microsoft Windows, VMware and Linux.

SECURITY — NOVEMBER 28, 2008



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By leveraging Retina's fully preconfigured 651 Security Management Appliance, users can perform a full scan, review results, generate reports, and download information to tools such as Microsoft Office and Adobe Acrobat after turning on the unit and logging on to their company's eEye account.

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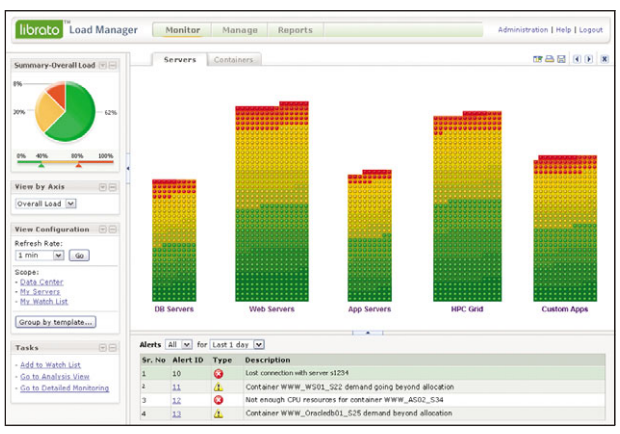
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NOVEMBER 28, 2008



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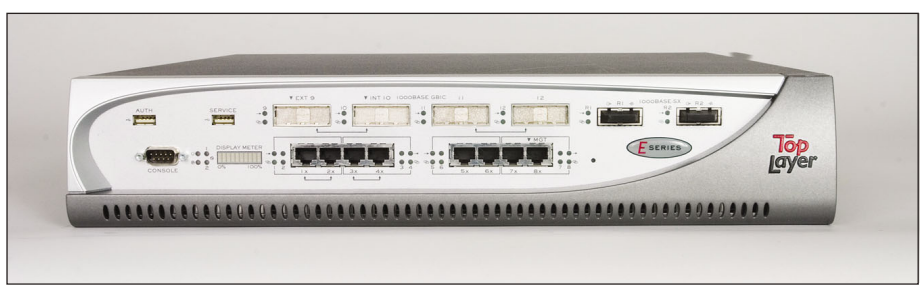
Load Manager allocates system resources via a policy-based scheduler to ensure optimal performance and service level. By maximizing server utilization and delivering application quality of service, Load Manager results in fewer servers, fewer operating systems, less complexity, and guaranteed service level agreements. By dynamically assigning unused capacity, Load Manager dramatically increases server utilization, enabling organizations to get the most out of existing resources. Load Manager typically uses less than 1% overhead and requires no OS or application modifications.

Load Manager supports Linux and Windows Server 2003 and 2008. The solution's demand-monitoring capabilities provide an advanced level of capacity planning. In addition to allocating system resources to an application and measuring actual resource consumption (load) over time, Load Manager can also be used to project how much resource an application would have consumed (demand) had it not been limited by its allocation. This ability to determine the difference between load and demand provides organizations with a powerful tool for planning server capacity.

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SECURITY

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The IPS 5500 E-Series has new shunning features designed to provide companies with techniques to support the device's automated attack defense. These include the ability to quickly temporarily or permanently reject traffic from IP addresses suspected of originating or being related to an attack. The new features are designed to help companies interactively identify current attackers and then shun attack traffic.

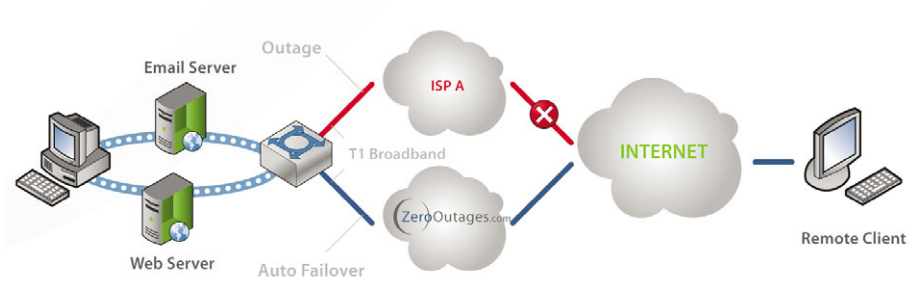
The IPS 5500 E-Series also includes a new user interface with dashboards designed to allow Security Operation Center personnel to quickly switch between "quiet-time" monitoring and "under siege" incident response. Other new features include attack source identification, malicious IP address shunning, and additional router protection.

With malicious IP address shunning, users can set time periods for how long each address should be shunned and manually unshun addresses that are determined safe. With additional router protection, users can export a list of IP addresses being shunned so that they can be imported into a router for blocking by the router. The new features are included in version 5.2 of the IPS 5500 E-Series software.

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NETWORKING & VPN

NOVEMBER 7, 2008



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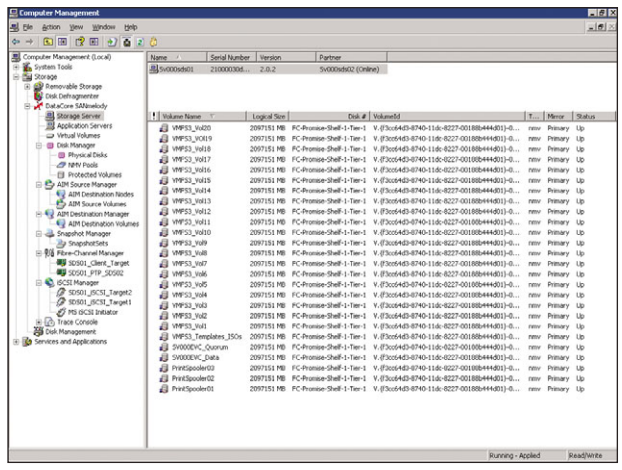
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STORAGE

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FCG is a Premier Channel Partner with DataCore Software, with products focusing on storage virtualization, management, and monitoring. DataCore SANmelody, SANsymphony, SANmaestro, and Traveller CPR offer a combination of features and functionality to meet the needs of any enterprise.

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VPN & Encryption

Compelling Small Vendors That Can Help Boost Data Center Security Efforts

by Elizabeth Millard

• • •

As the workforce becomes ever more mobile, VPN and encryption products and services will continue to play a central role. There are plenty of large vendors in this particular access and security space, but smaller vendors are sometimes better for establishing a long-term relationship and getting specialized support. Here are a few that are worth a look.

Telethra

Started by Francis Dinha and James Yonan, the pair that created OpenVPN, Telethra (www.telethra.com) focuses on expanding the reach of that software and on building on its main product, the VXN (Virtual eXchange Network).

According to Dinha, emerging Web 2.0 technologies require a scalable, fault-tolerant content distribution architecture in order to tap into the potential of collaboration and media applications. But security requirements, as well as increasing bandwidth needs, introduce challenges.

"The associated high cost and complexity of configuration management require a next-generation approach to network security and scalability that extends the traditional virtual private network model to the next level," he notes. "This level is where the virtualization of the network and its services, such as Xen or VMware, can be seamlessly managed."

To address the complexity, Telethra developed VXN as a software-as-a-service product that can not only fulfill the requirements of a VPN but also address demands related to media exchange and distribution of applications. VXN supports its VPN services through the use of OpenVPN.

Even if a company doesn't want to go the full-on VXN route, it may want to consider whether OpenVPN can fit into its data center. The open-source SSL VPN software was created to meet the needs of SMEs and accommodates a range of configurations, including Wi-Fi security, site-to-site VPNs, and other remote access strategies. Dinha notes that it's a "lightweight alternative" to other VPN technologies.

The software itself is free because it's open-source, and the OpenVPN company (www.openvpn.net)—also started by Dinha and Yonan—offers tools for deployment and management as well as support.

Untangle

Another company determined to reduce complexity is Untangle (www.untangle.com), which focuses on network security and control for SMEs. Much like Telethra, the firm also has a strong reliance on open-source technology in order to boost cost-effectiveness and has integrated OpenVPN for its remote access.

In terms of wider network security, the company recently released Re-Router, a product that enables Windows-based desktops to perform network gateway services such as blocking viruses and spam. According to Untangle's Chief Technical Officer Dirk Morris, the technology was designed for SMEs because it can fit into environments where both budgets and IT time are limited.

The technology runs transparently in the background of any Windows XP desktop, protecting the network from online threats without affecting functionality such as network speed or application performance. Unlike traditional desktop security software, the Re-Router technology protects all the PCs on a network instead of just the host computer, so it's an extra level of security for those using VPNs. And, Morris adds, it's free—that's a tough price to beat.

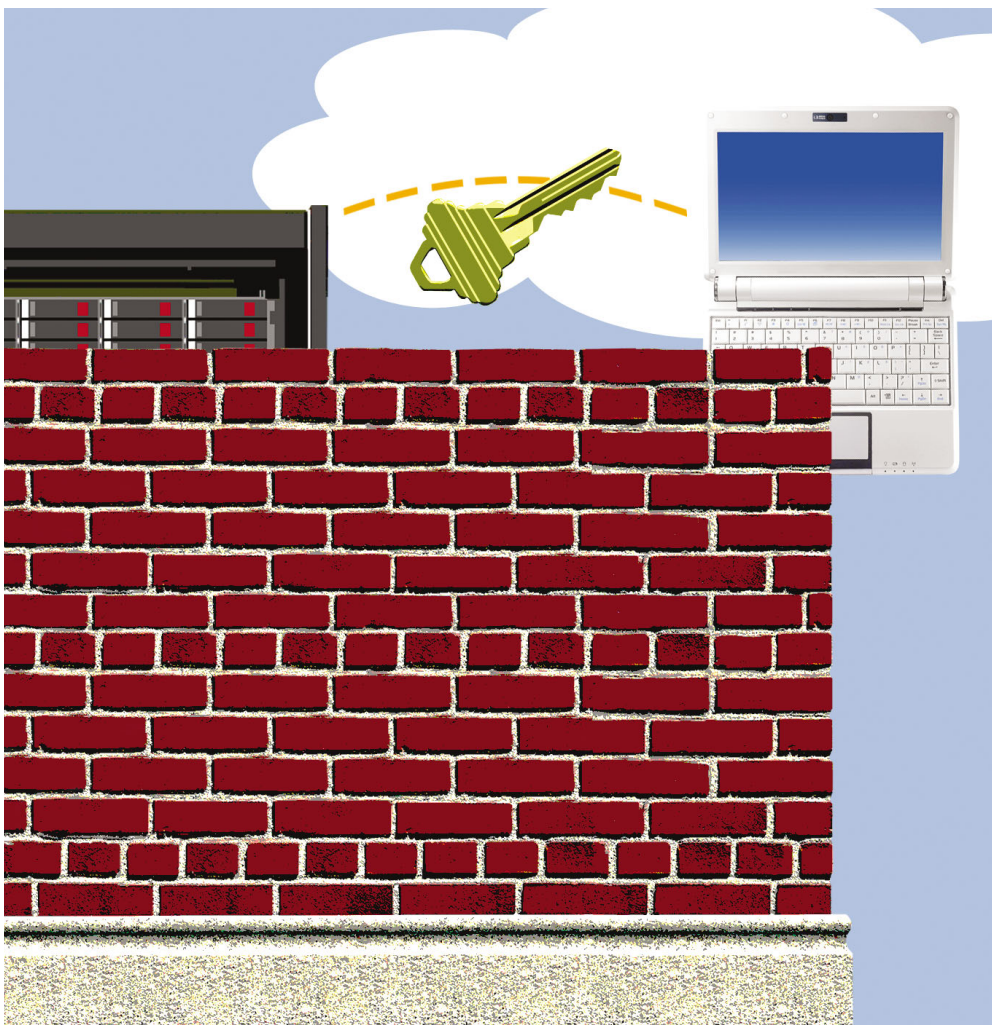
"For small businesses running Windows, our new Re-Router technology offers a free and totally painless way to leverage all the best networking apps," he says. "There isn't any network reconfiguration or recabling—just download the software and you're off and running."

Perimeter eSecurity

Providing what it calls "security on demand," Perimeter eSecurity (www.perimeterusa.com), offers more than 50 technologies on a subscription basis with says Perimeter eSecurity Chief Security Architect Kevin Prince. "There are so many products targeted toward SMEs that it can become an administration challenge."

One of Perimeter's major contributions to the network security marketplace is MailSafe 2.0, which provides encrypted email capabilities and helps SMEs create and enforce security policies. The encryption is part of a larger suite of secure messaging services, including content filtering, antivirus, spam blocking, and archiving. MailSafe 2.0 was designed to be simple to use, Prince notes, and is specifically geared toward both small to midsized enterprises and larger organizations. Because it's a service, there's no software to download and install, and management is more streamlined, he believes.

The MailSafe system inspects all outbound email and automatically redirects messages that contain sensitive content



the idea that customers benefit from having a single-source provider of security rather than a multitude of vendors that might not play well together in a single environment. The company has been around for most of the past decade, fashioning partnerships with startups and major players alike, all with the goal of providing network security as a utility-based solution.

"You want to make sure your end users have packages with all-in-one functionality," through a secure, encrypted channel. Encryption of this type is part of a larger security strategy that's necessary for SMEs to reduce risk, Prince says.

"You need a layered model, with security at several levels, and at the same time, you want protection that doesn't hurt your budget, especially at an SME," he adds. "The all-in-one-box approach can be very cost-effective, with an amazing level of value and security protection." P

Great Potential: Crossbeam Systems

There are a number of small companies that just get bigger thanks to organic growth, and Crossbeam Systems (www.crossbeamsystems.com) seems poised to conquer the network security world. The company has a security platform that can help both SMEs and large organizations to deploy their security services, from firewalls and content gateways to intrusion prevention systems.

The vendor has made partnerships with companies such as Check Point to combine its unified threat management offerings with VPN options, creating bundles that offer VPN flexibility but also better threat management within the data center.

"The great vanishing network is everywhere," says Throop Wilder, Crossbeam's vice president of corporate strategy and one of the company's founders. "Everything is becoming virtual, which is reflected in the language, like VPN, virtual switches, and VLAN. The key thing to watch is how networking teams maintain their control in these virtualized environments."

News

Barracuda Networks Projects Record Spam Volumes In 2009

Web and email security company Barracuda Networks estimates that spam will grow to account for more than 95% of all emails this year. Last year, Barracuda found that spam levels remained largely unchanged from 2007, accounting for between 90 and 95% of total email. Barracuda points to the growing use of botnets as one of the primary reasons spam may push beyond the 95% mark this year. The growth of spam from countries not previously known for generating bogus email, such as Brazil and Turkey, is also a factor.

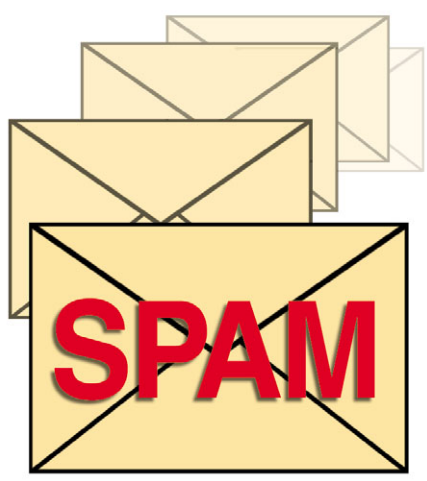
Of the top 10 spam-generating countries, Brazil ranked second and Turkey ranked fifth, joining the ranks of customary Web troublemakers such as Russia and China. Barracuda indicates that part of the increase is due to residential broadband penetration and the proliferation of data centers in more countries.

A Lucrative Industry

According to Stephen Pao, vice president of product management for Barracuda Networks, "The nature of spam continues to change drastically, to the point where spam itself is an industry. For example, the very elite spam operations—those that have over time gained access to large botnets—can now offer crimeware as a service to smaller operations." Crimeware as a service allows spammers to rent portions of controlled botnets or sell toolkits for sending spam or other malware to operations that do not otherwise have access to servers or other tools. "Botnet proliferation and crimeware as a service [have] made spamming campaigns more affordable for sending larger volumes of spam by a greater number of operations. It's not just the 'spamming elite' any longer."

Barracuda Networks also predicts that including brand names within spam and other social engineering techniques will increase the amount of spam entering our inboxes this year. Data from the last quarter of 2008 reveals that spam campaigns featuring popular consumer brands, such as Hallmark and McDonald's, were trendy ways for spammers to trick users into providing their personal account information. "We are seeing an increase in the number of retail spam emails for knock-off products, such as Rolex watches or designer apparel. Most consumers cannot purchase the real items, and spammers are banking on the idea that some recipients will be more likely to click through for these items," says Pao. Barracuda Networks advises small and midsized companies to employ an email filtering solution to protect employees and proprietary information.

by Nathan Lake



HVAC & Environmental Monitoring

Continued from Page 1

business, equipment repair, or replacement," says Sigourney.

Temperature@lert

Although data centers can be complex places, Harry Schechter, founder of Temperature@lert (www.temperaturealert.com), says the real answer to improved efficiency lies in simplicity. "Our USB and Wi-Fi products do only one thing: They sense temperature and report alarms via email," Schechter says. "They're designed to be set up in minutes so data center managers can get back to the important stuff they do."

According to Schechter, traditional approaches to data center temperature management often fall short because they are not precise enough to identify small hot spots. "You have to be able to see temperature differentials in many places within your facility," he says. "This might help you see, for example, if airflow has been inadvertently blocked by a technician. You may think that everything is in good shape, but all it takes is for one cabinet vent to get blocked and then servers start going down."

Large numbers of inexpensive sensors give data center managers better vision than ever before. This solution was driven by necessity. "A couple of us were running data centers about 10 years ago, and there was nothing inexpensive to see what was going on," says Schechter. "So we designed a simple circuit and started using it ourselves. Then we started hearing from other people that they had a need for this, too."

To this day, Temperature@lert retains a tight connection between its engineers and its customers. "We know of no other company selling solutions at this level that puts engineers directly in touch with customers," Schechter says. "But it is where we connect with customers that our best ideas come from."

Atlas Sales & Rentals

When you're looking for portable data center environmental control solutions, one phone call to any distributor will usually lead to a delivery. Support and guidance may not be included, however.

"We are one of the few distributors that actually provides service, as well," says Rob Atkocaitis, national accounts manager for Atlas Sales & Rentals (www.atlassales.com). "We don't just deliver the units and set them up. We'll also run condensate lines and spend time with them to ensure they're getting exactly what they need."

The firm's delivery people are trained to provide this extra level of support. Unlike many competitors, its branch offices are also stocking locations, which minimizes turnaround times.

Atlas is the largest independently owned distributor of portable air conditioning and heating units in the country. That independence allows Atlas to minimize overhead, which Atkocaitis says gives it greater price flexibility. But even price isn't always enough.

"Our biggest feature is that we care about what our customers' needs are," says Atkocaitis. "We walk them through the entire process to find out their needs and understand what they're trying to accomplish. Then we tell them exactly how to do that."

It's an issue that's never been more important for IT. "In the past, air conditioning was often seen as a luxury, not a necessity," says Atkocaitis. "Today in IT, it is an absolute necessity. You stand to lose a lot of valuable data if the temperature in your data center climbs over 85 [degrees Fahrenheit]." P

Great Potential: Upsite Technologies

Conventional wisdom contends that improving your data center's energy efficiency and reliability requires wholesale replacement of your existing equipment. Peter Crook, president and CEO of Upsite Technologies (www.upsitetechnologies.com), disagrees.

"A lot of other companies will ask for a significant capital investment or paradigm shift that would force you to operate your data center in a different manner than you're used to," says Crook. "We're unique in that we'll work with whatever you've got."

The Santa Fe, N.M.,-based company offers products, as well as services, and Crook says it's on the services side that Upsite's consulting-focused approach pays dividends.

"Through our partners, as well as by ourselves, we look at your whole data center, both below and above the floor, and we'll find the best way to do what you need to do with your room," he says.

Focusing on the little things helps Upsite identify savings opportunities that might otherwise be missed. "Sometimes you need to reset the temperatures on your units or measure your CRAC [computer room air conditioning] unit's performance against the manufacturer's efficiency rating—little things that are often forgotten because you're so close to so many critical decisions," says Crook, "and every day, you're faced with a hundred critical decisions. We give you that additional level of perspective."

Netbooks

Continued from Page 1

dropping the PCMCIA slot and CD/DVD drive. Additionally, the move away from CD/DVD drives segues well into the overall push for green IT, as it eliminates the need for plastic media.

Support for the latest class of high-speed networks (Gigabit Ethernet, 3G, 802.11n) is not common in these ultra-lean machines, making them less attractive for bandwidth-intensive applications. Similarly, legacy technologies are practically nonexistent.

For power users on the go, be warned that netbooks lack the beefier Li-Ion batteries and instead use 3-cell and 6-cell batteries. This translates into as little as two hours or less of unplugged operations for lower-end units, although some of the soon-to-be-released netbooks boast a whopping 12 hours on batteries alone, thanks to a combination of solid-state drives and hard drives working in tandem.

For organizations that rely on laptops docked on desktops, few netbooks offer a docking station. However, they do include a VGA output. Combined with an external keyboard and mouse, these mini-computers can rapidly be transformed into a very affordable desktop-like system.

Advances In New Technologies

Giving up hardware resources and horsepower may appear to be a step backward, but for enterprises that want to remain on the bleeding edge, netbooks offer an opportunity to transition into emerging technologies such as cloud computing, open-source software, and solid-state drives.

With virtualization on the rise, netbook sales are expected to rise right along with the move toward cloud computing. As more enterprise applications move off of the machine and into the cloud, the business case for widespread netbook deployment will become stronger.

Most netbooks also include a built-in camera and microphone, which can rapidly facilitate videoconferencing without the expense and hassle of peripherals.

Despite a heavy presence of Linux in enterprise data centers, the open-source OS has not penetrated the end-user environment. Analysts predicted netbooks as a stepping stone to increase the use of open-source desktops; however, Tung has witnessed otherwise. "From our figures, netbooks configured with Linux are returned four times more often than those running Windows XP. The price is attractive at first, but then when they encounter an unfamiliar operating system, they don't want to take the time to learn something new."

However, many netbook manufacturers are working closely with open-source distributions, such as Ubuntu, to create an attractive and functional product aimed at both personal consumers and the enterprise. Amazon's August 2008 list of top-selling netbooks showed twice as many Linux-based netbooks in comparison to those running WinXP. P

What's The Difference?

Although notebooks and netbooks are both portable computing devices similar in appearance, there are several differences that can ultimately decide upon their practicality within the enterprise.

Product	Notebook	Netbook
Price	More expensive *$399 to $2,800*	Less expensive *$299 to $899*
Size	Larger *15- to 21-inch screens* *3 to 10 pounds* *Standard keyboard*	Smaller *7- to 12-inch screens* *3 pounds or less* *Reduced keyboard*
Battery	Longer Life *Li-Ion batteries*	Shorter Life *3- or 6-cell batteries*
Ports & Optical Drives	CD, DVD, PCMCIA, USB, VGA, Wi-Fi, Bluetooth, Infrared, Ethernet, RJ-11	USB, VGA, Ethernet, Wi-Fi

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Backup Products & Services

A Look At Some Small Providers That Offer Big Functionality & Service

by Chris A. MacKinnon

• • •

When we consider backup solutions for the enterprise, we tend to go for the tried-and-true products from big-name providers. But what about the smaller companies that offer products that often surpass our expectations? Here is a look at a few companies in the backup products and services market that deserve a first—and second—glance, what makes them unique, and what they have to offer the small to midsized enterprise.

CMS Products

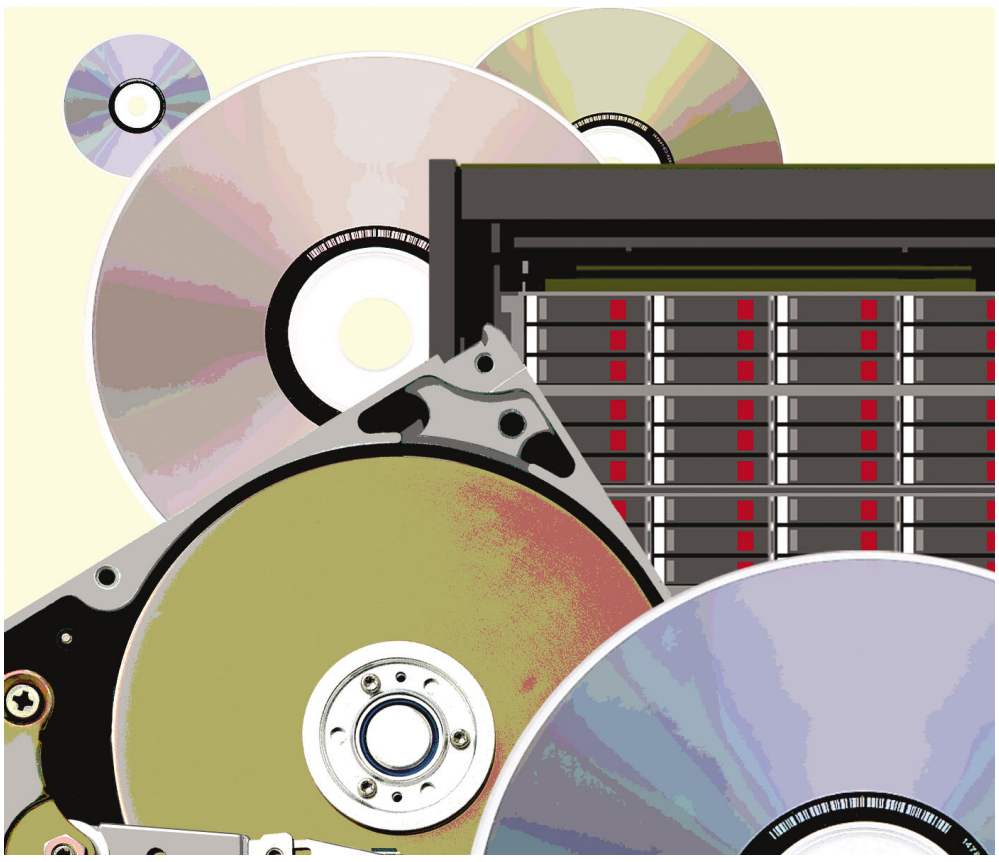
Located in Costa Mesa, Calif., CMS Products (www.cmsproducts.com) manufactures automatic data backup and restore solutions and encrypted security solutions for portable and desktop computers. Other products in its lineup include media management solutions and software, high-capacity RAID arrays, data transfer products, and replacement hard drives. To date, the company has sold more than 2 million units of software.

Gary Streuter, vice president of marketing for CMS, says his company's backup and restore software, BounceBack Profes-sional, is well-known for its user-friendly format and has allowed users to achieve quick and easy restoration of data otherwise lost to a hard drive failure. The software also allows users to make a complete bootable copy of a computer's hard drive, including the operating system, applications, system Registry, boot information, and all data files.

"BounceBack offers two forms of data rescue, namely removing the external drive from its enclosure [to replace] a crashed system drive or utilizing the rescue disk with a new bare-metal hard drive," Streuter explains. CMS' BounceBack Ultimate solution features a file-level encryption system with a new Instant PC Recovery, which Streuter says is unique within the industry.

CMS has also developed the ABSplus family of data backup and restore software, which ranges from lightweight, ruggedized portable hard drive solutions with massive storage capacities to robust, space-saving desktop solutions and sleek RAID backup solutions. The company has also forged its way into the realm of data transfer with its easy-to-use data transfer software and complete kits. The data transfer software utilizes CMS' EasyMove technology to make the migration of data from an old system drive to a new, larger bare-metal drive an easy task.

Streuter says data center and IT managers can benefit from CMS' enterprise-level products, which allow individual user monitoring for backups and complete customization to the data professional's needs.



Decho

Decho, located in Seattle, was formed when smaller companies Mozy and Pi joined together. Decho (www.decho.com) helps an enterprise protect and manage what the company calls its "digital echo," or its valuable digital information. Mozy, the company's flagship offering, is an online backup service for consumers and businesses. Mozy and MozyPro currently safeguard more than 10 petabytes of data, much of which comes from its more than 25,000 business customers.

Devin Knighton, spokesperson for Decho, says Mozy nearly doubled its user base in 2008. "The reason Mozy is growing so fast so quickly," Knighton says, "is because it's solving the backup problem for people and businesses in a simple, automatic, secure, and affordable way." He says Mozy frees up data center managers' time to focus on other assignments and allows them to manage the backups of servers, as well as employee desktops and laptops.

Knighton adds, "As a result, MozyPro protects a business' critical information assets from fire, flood, failure, or theft. According to the National Archives and Records Administration in Washington, D.C., 93% of companies that lost their data for 10 days or more due to a disaster [filed for bankruptcy within a year]."

Knighton says Mozy also has an option for IT shops to join its reseller program. He notes, "Today, Mozy has thousands of IT experts reselling the service in their local areas. By including Mozy in their offerings, IT experts enhance the value they provide to their clients." He concludes, "The only way to really solve the backup problem is to have backups occur automatically without even needing to push a button and to have a copy safely and securely stored away from the physical location of the primary copy."

Zmanda

Located in Sunnyvale, Calif., Zmanda (www.zmanda.com) provides open-source backup and recovery software. The company's three main solutions include Amanda Enterprise, ZRM (Zmanda Recovery Manager) for MySQL, and ZIB (Zmanda Internet Backup). These products are designed to back up and recover data in complex and heterogeneous IT environments.

Amanda Enterprise is Zmanda's enterprise-grade network backup solution based on the commercial version of Amanda, which was developed at the University of Maryland in 1991. ZRM for MySQL is a backup and recovery solution designed specifically for MySQL databases in mission-critical environments. And for small and medium-sized organizations, ZIB is an online backup and recovery solution that protects Windows files, applications, and networked devices.

So why should data center and IT managers at small to midsized enterprises be interested in Zmanda and its products? According to Chander Kant, chief executive officer at Zmanda, the most important asset for any company, regardless of size, is information. He elaborates, "The data protection issues that are associated with ensuring the availability and recoverability of information are a serious concern for all businesses, regardless of size."

Kant says because of the sheer amount of data that is created each day, it is difficult for enterprises to organize and manage it. He says information can be stored on a variety of storage devices, servers, endpoint machines, removable storage devices, and across vast networks of computers. He adds, "Some businesses lack the dedicated IT resources of the large enterprise. If a business has only one or two IT people, they are generally asked to manage a broad range of IT issues. Many organizations cannot afford the same types of commercial backup solutions that are used by larger enterprise customers." He says that fortunately for Zmanda, savvy organizations are helping to drive data protection innovation by demanding data protection solutions.

In Kant's opinion, Zmanda and its solutions are unique because none of the company's products use any proprietary data formats or tools when backing up data. He adds that other commercial backup products lock users in because they provide the only way to recover data using proprietary backup algorithms, tools, and data layouts. He says Zmanda is also unique because it is the only data protection solution provider to offer CDP (continuous data protection) for MySQL databases. P

Great Potential: BakBone Software

Located in San Diego, Calif., BakBone Software (www.bakbone.com) develops data protection technologies, including backup, disaster recovery, and replication and storage reporting solutions, for Linux, Unix, Windows, and Mac OS X. The company's backup and recovery product line, NetVault, provides enterprise-class data protection for complex, heterogeneous IT environments.

News

Slow Economy Won't Slow Green IT Initiatives

The economy might be slowing down, but according to a recent study conducted by Forrester Research, green IT initiatives have stayed consistent. It's not that the IT industry isn't affected by the economic troubles. In fact, it's quite the opposite.

More than 1,500 IT global operations and architecture practitioners working for more than 1,022 companies worldwide responded to the survey led by Christopher Mines, a senior vice president at Forrester. Of the respondents, 52% said they are implementing or creating green IT action plans, an increase from the 45% that responded that way six months ago.



Mines attributes several factors to the increase. Mostly, companies are looking for more ways to be energy-efficient, which is also cost-efficient. In fact, of the respondents who say they are implementing green IT initiatives, 10% say they are preparing to accelerate those plans. In addition, 38% say they are going to maintain the pace; 47% say it's too soon to tell; and just 5% say there are plans to slow down green IT initiatives.

"I think that energy cost savings will continue to be the biggest driver that pushes companies to adopt green IT," Mines says. "But it's never just one thing. Especially for companies in Europe that face regulatory/carbon reporting requirements and for big 'brand' companies that want to appeal to green consumers (retailers, consumer products, even banks), the strategic motivations strongly complement the money-saving aspects of greener IT operations."

According to the study, there are two survey data points that reinforce the idea of companies accelerating green IT efforts. First, green marketing by IT vendors is becoming more visible. Second, green IT action plans are sticking because companies are discovering the cost savings associated with green initiatives. According to the study, 67% of respondents listed reduced energy-related operating expenses as the motivating factor for implementing green IT initiatives. Mines expects that number will only increase with time.

"I think more companies will move out of the 'too soon to say' category in our survey," Mines says. "Some of these will move to accelerating, and some to decelerating. I would expect that the 2:1 ratio of accelerators vs. decelerators would diminish over time, but that there would still be more companies going faster."

Companies are discovering, however, that implementing green initiatives goes beyond purchasing new equipment. It's an overall change in behaviors and processes. Of the respondents, almost 60% say they implement green principles in their IT procurement. Of those respondents, 31% also deem green criteria "very important" when deciding on suppliers and products.

by Tessa Warner Breneman

News

So-Called "Curse Of Silence" Befalls Some Nokia Handsets

A denial-of-service attack that can take out a phone's SMS capabilities has been discovered in Nokia S60 and UIQ handsets. Tobias Engel of security research group F-Secure discovered the vulnerability and presented his findings at the recent Chaos Communication Congress. An attack can occur if someone sends one (or multiple) specifically formatted SMS text that subsequently crashes the recipient's SMS system. Once attacked, a handset must be factory-reset. F-Secure offers a security solution to protect against this threat, and Nokia may at some point offer a firmware update to protect handsets.

China Begins Issuing 3G Mobile Data Network Licenses

Network infrastructure providers, including Alcatel-Lucent, Ericsson, and Motorola, will have the opportunity to break into the Chinese market by providing 3G data service, as China has finally agreed to issue licenses; however, contracts may go to domestic providers first, limiting the market share for foreign carriers. Regardless, handset sales should see a major boost because of the new capabilities and China's estimated 600 million wireless customers. 3G standards that will be implemented are China's TD-SCDMA, Europe's WCDMA, and North America's CDMA2000.

Site Reports Free Or Discounted Upgrades To Windows 7

According to TechARP, Microsoft will offer free or discounted Windows 7 upgrades to users who buy Vista PCs after July 1. The Malaysia-based Web site, which has accurately named past RTM (release-to-manufacturing) dates for several other Windows editions, reports the release will be similar to the Vista Express Upgrade, a 2006 effort that provided a free or discounted Vista license to Windows XP buyers before the 2007 release. The upgrades would not be released to PC buyers until the general availability date for Windows 7, which has not been set by Microsoft. Windows 7 is expected to be delivered sometime later this year or early next year.

Proposed Stimulus Could Create Thousands Of IT Jobs

The new Obama administration's proposed economic stimulus plan could create hundreds of thousands of new IT jobs, according to analysts. A study by the Information Technology and Innovation Foundation, a think tank advising the President-elect on technology policy, concluded that if the government spends $30 billion of the $775 billion package on expanding broadband Internet access, computerizing health care records, and enhancing the nation's electrical grid, it could create 950,000 jobs. Obama announced Jan. 8 that he would include funding for those projects in the stimulus package, which Congress is expected to vote on sometime in the next few weeks.

States Hope Legacy IT Systems Will Benefit From Stimulus

Some state CIOs are hoping that the Obama administration's proposed economic stimulus plan, which allocates billions of dollars for roads, bridges, and other infrastructure projects, could mean upgrades for their aging IT infrastructures, as well. In a survey conducted last summer by the National Association of State Chief Information Officers, almost two-thirds of the 29 respondents said that between 40 and 80% of their IT systems included legacy equipment. Many also reported that they were still using code that was written at least two decades ago.

Data Center Design Services

These Smaller Players Know What You Need & How To Deliver

by Bruce Gain

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Admins may be well-acquainted with the ins and outs of running a data center, but when it comes to design and construction, third-party firms will usually play a major role. One part engineer, one part electrician, and one part hands-on construction expertise that goes with laying down raised floors, installing cooling systems, and the rest of the heavy lifting involved, a successful data center builder must have many layers of know-how and engineering skills to manage it all.

These days, there are many smaller service providers emerging in the market, each with its own focus, that can help you design and construct your data center. Here are a few smaller companies to consider in your search for third-party data center design services.



Allocating the resources to design a superior data center will pay dividends in the long run.

Total Site Solutions

According to Total Site Solutions (www.totalsitesolutions.com), keeping the big picture in mind throughout the data center design process will allow you to realize cost savings compared to just opting for the least expensive bid each step of the way. As part of what the company describes as a "complete facility integration" approach, its staff of IT systems planners, facility planners, certified engineers, and security consultants offer turnkey services. The company's specific offerings include planning, engineering, facility design, management, procurement, and commissioning, as well as maintenance services upon completion of the project.

Eric Maxfield, vice president of business development and marketing for Total Site Solutions, believes all of these things represent sound business investments. Haggling over a few hundred dollars here and there may be necessary in some cases, but it's important to realize that allocating the necessary resources to design a superior data center will pay dividends in the long run, Maxfield says.

"Every dollar spent on proper planning and design will reduce the cost of construction and operation," he says. "You often have to spend money to save money, [because older,] legacy technology and/or facilities cost more to operate and deliver less."

The word "total" is a major component in Total Site Solutions' data center design offerings. The firm's ambitious mission is to provide services "throughout the entire life cycle of a data center: from strategic planning [to] design, construction, and long-term maintenance," Maxfield says. "This gives us broad knowledge to feed back into each service area and grounds our services with real-world experience."

PTS Data Center Solutions

Building or renovating a data center does not have to be a mystery, according to PTS Data Center Solutions' (www.ptsdcs.com) philosophy. From the outset, PTS Data Center Solutions offers its potential customers a computer room project process document and other supporting materials for educational purposes.

"The document is very useful in making the average IT professional comfortable with a strong understanding of the construction process along with the pitfalls, schedule delays, cost overruns, or compromised design that come from skipping any of the steps in the process," says Michael Petrino, vice president of PTS Data Center Solutions. "This process applies to the 25,000-square-foot room just as easily as the 500-square-foot room."

PTS Data Center Solutions' comprehensive menu of offerings is geared toward small to medium-sized enterprises, Petrino says.

"IT professionals in the under-1,000-user environment are most appreciative of the fact that we can run with the project from the planning [and] consulting stage straight through to engineering and construction, followed by commissioning and finishing with implementation," Petrino says. "A key to our success is that we speak both languages, meaning facilities and IT, so we are able to deliver what the IT professional is looking for with greater ease."

Turner Logistics

Deciding how much to pay for everything from electrical power grids to cabling is a major component of a data center design and build project. There is also an opportunity to save costs through adept procurement. The mission of Turner Logistics (www.turnerlogistics.com), a subsidiary of Turner Construction, is to save your firm money through its procurement services.

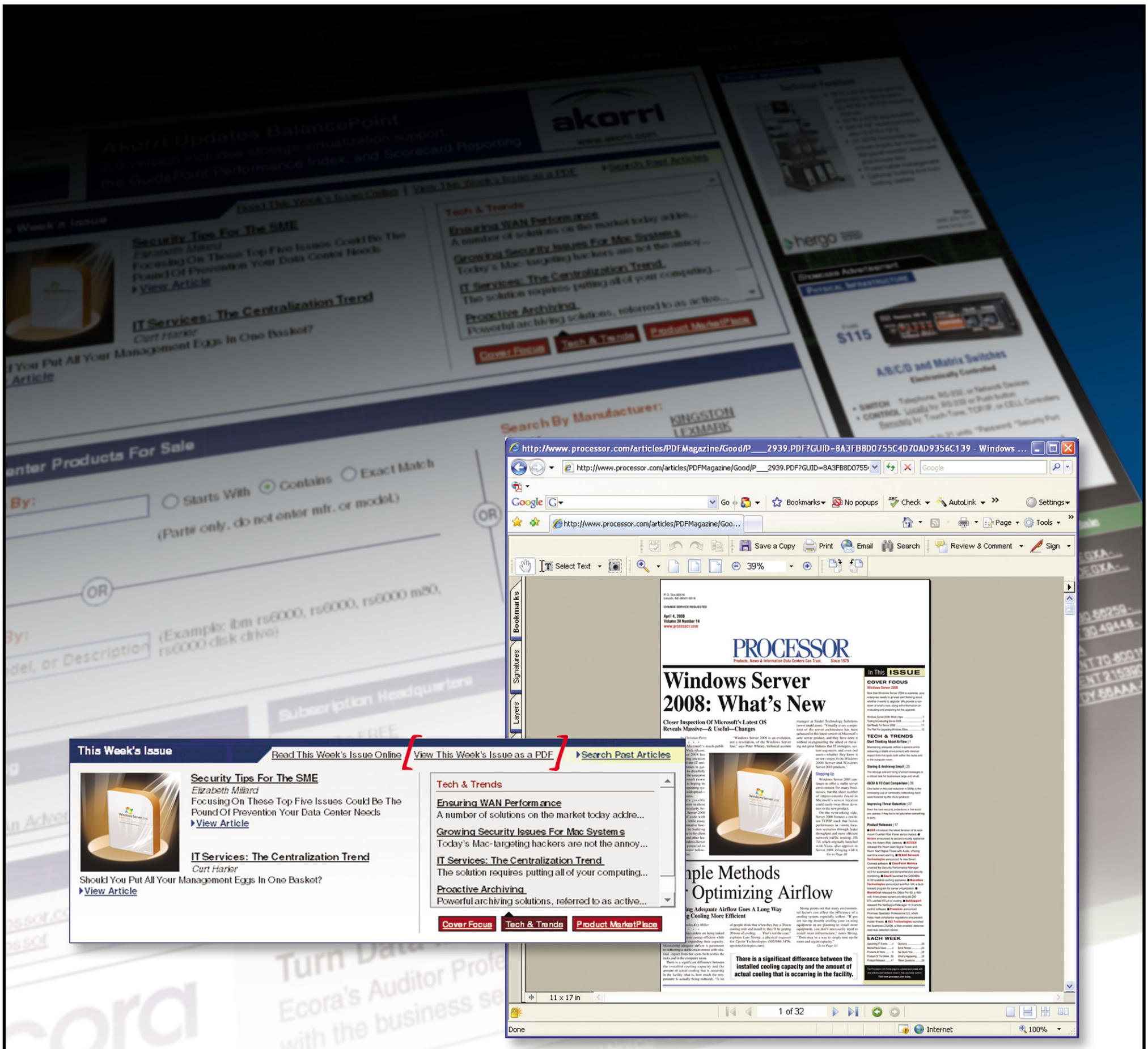
"If you look at what we call the 'heavy iron' of the mechano-electrical products, those [expenditures] can represent up to 40% of the total cost of the data center," says Turner Logistics' Vice President and General Manager Ben Kaplan. "Having individuals who are intimately familiar with the technical and commercial aspects of the supply chain for those components has [created] a very positive response in our business."

Turner Logistics can offer cost savings of 5 to 9% "day in and day out" compared to more traditional supply chain services, Kaplan says. "So if the equipment we procure represents 30% of the entire project and if you are saving 9% on 30% of the project, then you are saving roughly 3% of the total cost of the project by doing that," Kaplan says. P

Great Potential: STS-Tecom AG

How to keep data center servers cool remains one of the most challenging tasks when designing and building a data center. To answer this call, STS-Tecom AG (www.sts-tecom.de) seeks to offer high-efficiency services when it comes to designing data centers. With services that range from the actual assembly of servers to customized infrastructure builds that include electrical and cabling designs, in addition to the implementation of water-cooling systems, the firm's services will generate lower electricity costs, as well as less downtime by getting the builds right the first time, says Denny Tjitra, chief executive officer of STS-Tecom. The firm also has a track record of getting projects completed on time based on more than 18 years of experience since the company's creation in 1990.

STS-Tecom has an affinity for implementing water-cooling solutions and suggests that enterprises should adopt such systems instead of relying on large HVAC units to keep servers cool, as water's thermodynamic properties are better suited for cooling compared to air. "Water cooling is the most efficient way to maintain server temperatures at the 65 degrees Celsius threshold instead of with HVAC cooling," Tjitra says. "The idea is [to build a data center] with efficient cooling used in conjunction with properly configured servers."



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PRODUCT OF THE WEEK

Keeping The Peace

Rackmount Solutions' UCoustic Series Of Soundproof Cabinets Offer Superior Noise Reduction

by Robyn Weisman

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NOW IN ITS EIGHTH YEAR of business, Garland, Texas,-based IT equipment vendor Rackmount Solutions has earned a reputation for providing its customers with high-quality rackmount storage solutions at competitive prices. Rackmount Solutions is an ISO 9001:2000-certified company and has qualified for two GSA (General Services Administration) contracts because of its 94% customer satisfaction rating that encompasses such requirements as reliability, on-time delivery, order accuracy, and customer responsiveness.

This year, Rackmount Solutions (972/272-6631; www.rackmountsolutions.net) will become the exclusive reseller of the UCoustic Series of soundproof cabinets from UK-based Acousti Products (www.acoustiproducts.com). Every UCoustic cabinet, from the smallest 12U cabinet to the 42U models, cuts down noise level by about 27 to 28.5 decibels on average, according to independent testing agency MIRA (www.mira.co.uk), and the sound measurement is in accordance with the ISO 3744 Standard, says Susan Wynne, account manager at Rackmount Solutions.

Innovative Cabinets

According to Wynne, Rackmount Solutions had been selling a different vendor's sound-dampening cabinet for the past year and a half. Then, after talking with Acousti at various times over the years, Rackmount learned the company was seeking U.S. distribution for its products. Impressed by MIRA's test results and the build of the UCoustic cabinets, Rackmount expressed interest, and the deal was finalized.

The UCoustic cabinets work with most any type of server. With the exception of the 8250 Wall Box, all cabinets come with heavy-duty load-bearing casters, which are lockable and offer 360-degree rotation; at least two entries for cables; and rear and side access to install and maintain equipment. The cabinets also offer ample security, with a barrel lock each for the front and rear doors and two barrel locks each per side panel.

But the UCoustic Series' key feature is its noise-reduction ability. Wynne notes that server equipment stored in a rack cabinet in an office or other workspace can get very loud, "almost like a vacuum cleaner," she says. The UCoustic can turn vacuum cleaner-level noise to that of two people talking under their breath.

UCoustic rackmount enclosures reduce noise by using patent-pending acoustic foam blocks along with an innovative cabinet design. Cooling occurs through its silent self-venting cabinet design and is improved further with the use of soundproofed blanking plates that are put at the front of the rack, which reduces the opportunity for warm air to recirculate inside the enclosure. For those needing additional cooling capacity, UCoustic "Active" models also come with two thermostatically controlled fans in the rear doors. These fans also optimize the level of ambient background noise generated from within the enclosure.

Paul Troyer, Web and systems administrator at worker's compensation software provider Tropics Software Technologies (www.gotropics.com), is impressed by the enclosures' ability to reduce noise without increasing the amount of heat generated. "Typically, adding insulation would cause a reduction in airflow, which would increase heat," Troyer says.



All UCoustic rackmount enclosures use patent-pending foam blocks and an innovative design to reduce server noise to a whisper.

Useful Scenarios

Troyer says that the UCoustic Series of cabinets could be used under a number of different scenarios, although the most likely one would be a small company that lacked dedicated space for a separate server room. "This would enable the equipment to sit in the corner of an office or in place of a cubicle without affecting those around it. In a typical rack situation, communication in the same room requires loud conversation to talk over the fan noise," Troyer says.

Wynne concurs. "A lot of our customers are smaller businesses and offices that don't have a separate data room, [such as] a 10- to 15-person law firm or doctor's office," Wynne says. "The equipment is right there and can be loud and very distracting."

Even those companies that have separate server rooms or data centers may house server equipment in an office for security or convenience, or the IT manager might want to keep some network equipment in his or her office. "I imagine there would be some companies where security was a concern that might find that helpful," says Troyer. "Another scenario might be a rapidly expanding server environment where there is physically no room to add a rack."

Although virtualization means that more offices don't require as much physical server and storage space to run their hardware, the increase in information technology across so many enterprises, including ones that perhaps worked only with paper files and a few PCs a decade ago, makes a rack enclosure able to securely hold their hardware while minimizing noise to a whisper an important component.

Meeting Noise-Reduction Needs

In an effort to ease implementation, Rackmount Solutions will ship the UCoustic soundproof enclosures fully assembled and ready to use, which saves enterprises the headache of having to put them together and wondering whether they were set up properly.

Deborah Petty, senior account manager at Rackmount Solutions, looks forward to offering these cabinets and says there is a real need for the UCoustic product line in the United States. According to her, Rackmount Solutions' closest competitor in this arena only offers half the decibel sound savings that the UCoustic Series does.

"I'm hoping to be able to license the manufacture of it here in the U.S. to save our customers money. That may be in several years, as our supplier watches the sales of the product," Petty says.

The UCoustic Series of cabinets could be used under a number of different scenarios, although the most likely one would be a small company that lacked dedicated space for a separate server room.

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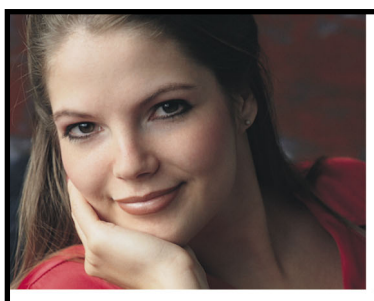
PRODUCT OF THE WEEK

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Description: A family of rackmount enclosures that offer users sound reduction while at the same time dissipating from 1.75kW of thermal energy in "passive" models up to 7.2 kW of thermal energy in "active" models that employ two thermostatically controlled fan blowers. The cabinets come in several sizes, including 12U Wall Boxes (Model 8250); a 12U minicabinet (Model 8210); and 12U, 24U, and 42U cabinets (Model 9210).

Interesting Fact: "[It seems like] nobody outside our industry knows what the heck rackmounts are," Rackmount Solutions Senior Account Manager Deborah Petty says. "Any time I visit a bank, marketing firm, [or] ad agency, I have to either explain in great detail or tell them, 'Never mind. Your IT guy will know what we do!'"

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Clients

Advantech IPPC-7158B



Harsh conditions are no problem for a new industrial panel PC from Advantech. The IPPC-7158B features a 15-inch TFT with 1,024 x 768 resolution and can be fitted with an optional USB touchscreen if desired. Its water-resistant front cover conceals an Intel Core 2 quad- or dual-core processor or an SBC with a Pentium 4 processor. Other features include programmable macro keys, up to 12 ISA/PCI slots in a passive backplane, and a USB 2.0 port.

Aspera GmbH & Trident Software Licensing Management

Aspera GmbH and Trident have announced that they will work together to create tools and processes needed for managing software assets administrated by complicated volume license agreements for enterprise customers in the United States, starting with Aspera SmartTrack. SmartTrack is the first tool to be launched in conjunction with the announcement that Aspera and Trident plan to eliminate the intricacies in license agreements that have blocked transparent software license management and attainment. SmartTrack is designed to concentrate on automating all processes surrounding the entitlements, rather than just focus on software installations and entitlements.

Networking & VPN

Codeorigin Sysax Multi Server 4.3

Codeorigin has announced the release of its new file transfer solution, Sysax Multi Server 4.3. Sysax Multi Server combines an FTP Server with a Secure Shell server and supports several protocols, such as FTP, Telnet, FTPS, SFTP, and SSH2. Sysax Multi Server runs as an NT service and can be administered with the administration panel, with the Windows management console, or remotely via a Web browser. Sysax Multi Server is available in three editions: the free Personal edition, which is available for noncommercial use; the Pro edition, which has some restrictions; and the Enterprise edition, which offers features such as support for unlimited simultaneous client sessions.

Parallels Desktop 4.0 For Mac

Parallels announced Parallels Desktop 4.0 for Mac, desktop virtualization software designed to run Windows and more than 50 other OSes on a Mac. Registered users qualify for a free update to version 4.0, which includes Apple remote disk support, so you can use a shared CD or DVD drive on another MC in Windows. You could also install Windows from another Mac's shared CD or DVD drive. Parallels Desktop 4.0 for Mac includes the ability to start Windows automatically in the background when you open a Windows application on the Mac Desktop. You can also drag Windows to Mac applications located in the dock. It supports DirectX 9.0 with Shader Model 2.0, as well as Intel Streaming SIMD Extensions.

Physical Infrastructure

Raritan Power IQ Energy Management Software

Raritan has added new reporting and analytics abilities to its Power IQ Energy Management Software that it says can give data centers and branch offices a better and more accurate picture of energy usage information and issues, such as IT energy expenses, rack capacity, and the welfare of IT equipment. Raritan says with IT devices plugged in to supported PDUs (power distribution units), Power IQ offers a consolidated view of power-related data while also tracking temperature and humidity data that environmental sensors in PDUs can collect. Power IQ presents its information in configurable graphs and reports accessible through a Web-based dashboard. Reports are available concerning kilowatts per hour energy use, energy costs per kilowatt hour, power capacity, and compliance and carbon footprint. Power IQ is available in virtual and hardware appliance models.

Security

Fujitsu PalmSecure LogonDirector Enterprise Edition

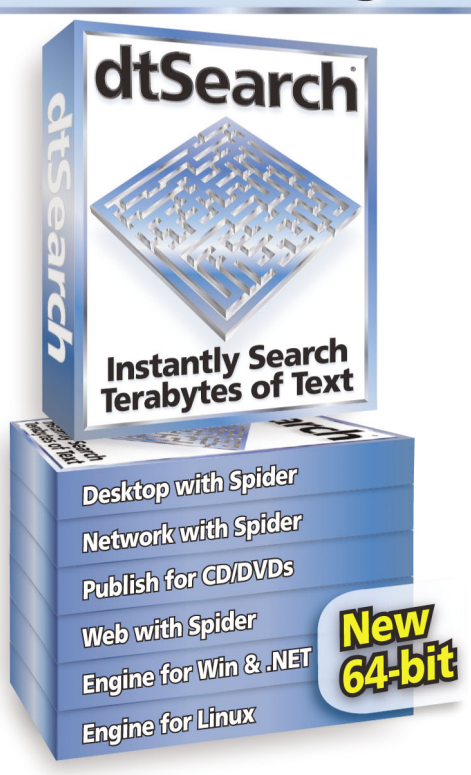
Fujitsu has announced the PalmSecure LogonDirector Enterprise Edition, which the company says is a fully scalable, centrally administered identity management product that uses Fujitsu's PalmSecure palm vein authentication technology, which is embedded into a mouse via software that works with leading SSO (single sign-on) products. Fujitsu says by combining nonintrusive biometric abilities with an SSO connection, Enterprise Edition provides a multilayered user authentication approach that improves security while complying with HIPAA, Sarbox, PCI DSS, and other regulations. Fujitsu planned to show the Citrix Ready and Citrix XenApp-compatible Enterprise Edition at CES in early January.

Intego VirusBarrier Server 2 & VirusBarrier Mail Gateway 2

Intego has announced the release of two security programs for Macintosh computers, VirusBarrier Server 2 and VirusBarrier Mail Gateway 2. The programs protect Mac computers from all known viruses on servers

Go to Page 16

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Product Releases

Continued from Page 15

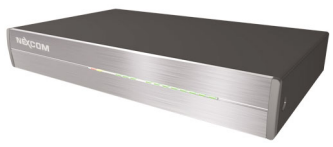
running Mac OS X. Server 2 scans each file that is copied to a Mac OS X server and quarantines infected files. Mail Gateway 2 offers email protection by scanning incoming and outgoing emails and repairing/disinfecting emails in the Quarantine Zone. Virus 2 features include a GUI administration console; manual, real-time, and command-line virus scanners; scans for Mac and Windows malware; detailed logs of infected files; and scheduled scans.

■ Meru Networks SG1000 Security Gateway

Meru Networks introduced the SG1000 Security Gateway, an appliance designed to meet FIPS 140-2 Level 3 security for U.S. and Canadian government agencies and other security-conscious organizations adopting wireless LANs. Level 3 provides physical tamperproof security mechanisms, including a hard epoxy enclosure, as well as strong identity-based authentication and split-knowledge procedures. Enterprise customers can add the SG1000 to an existing deployment to ensure full FIP2 140-2 compliance of their wireless networks, and you can upgrade the controller-based System Director software whenever a new version becomes available to provide quick access to new features and functionality.

■ Nexcom DNA1500, DNA1501

SME security appliances recently announced from Nexcom come with single- or dual-core MIPS64 XLS processors. The



new DNA1500 and DNA1501 provide high performance for security applications such as antivirus, firewall, IDS/IPS, and IPsec and SSL VPN. Multithreading support allows the fanless appliances to process up to eight fine-grain threads, which translates into robustness, as well as performance. An independent Compression/Decompression Engine offloads these traditionally CPU-intensive tasks, too.

Storage

■ ATTO Technology FastStream SC 8500

ATTO Technology has announced the addition of the FastStream SC 8500 8Gb Fibre Channel independent external RAID Storage Controller for the ATTO FastStream Raid Storage Controller line. The FastStream SC 8500 provides 1400MBps data access and supports applications in DVA and IT infrastructures for digital video and audio production environments. A 4KB sector size mediates 2TB partitions, while Media Error Handling decreases workflow disruptions. Other features include SES management, non-block device pass-through, and free firmware updates. The FastStream SC 5800 is also offered as an embeddable microATX board, supporting RAID Levels 0, 1, 4, 5, 6, 10, 50, 60, and DVRAID.

■ ATTO Technology Xtend SAN Command Line Interface

ATTO Technology has released the Xtend SAN for HeaderDigest and DataDigest with level 1 processing. The Xtend SAN CLI (Command Line Interface) automates iSCSI target management and provides both OEC transparency and data security. Enterprise users implementing the iSCSI Software Initiator for Mac OS X can access data from CHAP (Challenge-Handshake Authen-tication), iSNS (Internet Storage Name Service), and Login Redirect, as well as have iSCSI recovery for large-install environments.

■ CTERA Cloud Attached Storage Technology

CTERA has announced the availability of Cloud Attached Storage technology. Cloud Attached Storage technology joins Network Attached Storage (NAS) and cloud storage services into one tool, which is designed to deliver the performance and efficiency of a local NAS tool with the scalability and reliability of cloud storage to help service providers start up consumer and small business services. The smallest form factor appliance, CloudPlug, is a plug-top computing tool designed to quickly convert an external USB hard drive into a NAS tool with automatic backup.

■ EMC Corporation Retrospect 8.0

EMC Retrospect 8.0, the latest iteration of EMC Corporation's backup and discovery software for Macs, is available. Retrospect 8.0 is designed to offer an innovative interface, a powerful new engine, and a host of new and improved capabilities to meet the needs of professional users and small to medium-sized businesses. New features include an updated backup engine and user interface, backup-to-disk features, simultaneous streaming of data to multiple disks, and more.

■ Seagate Barracuda 7200.12 HD

Seagate has announced the Seagate Barracuda 7200.21 HD, a hard drive equipped with a high areal density. The 7200.12 HD is a 3.5-inch drive with an areal density of 329GB per square inch, with 1TB on two disks. The drive is designed to offer the ideal combination of storage capacity and speed required for today's most demanding desktop PC applications. The drive's SATA interface has a sustained data rate of 160MBps for fast boot, application startup, and file access, as well as a burst speed of 3Gbps.

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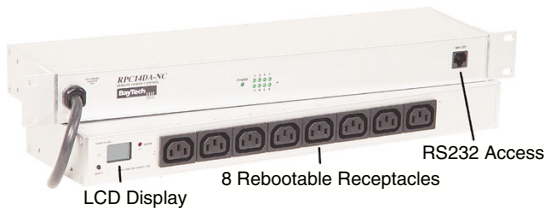


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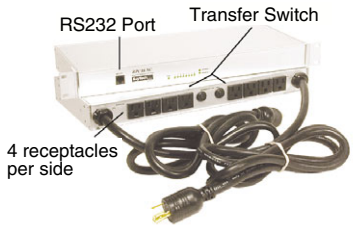
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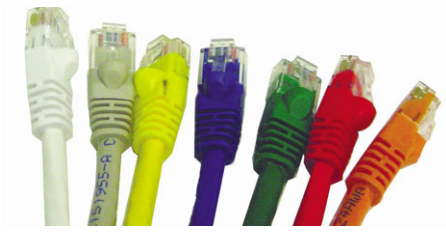
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News

Microsoft's Internet Explorer & Windows Lose Market Share

The end of 2008 brought a significant drop in the market share for Microsoft's Internet Explorer browser. IE ended 2008 down nearly eight percentage points, which translates to a decline of about 10% from the end of 2007. From November to December, IE lost 1.6% of its market share, which some say is due to the holidays and the subsequent decrease in business use. Comparatively, Mozilla's Firefox browser rose above the 20% mark in November and ended the year with 21.3% of the market. Apple's Safari gained 0.8% in December, increasing its market share to 7.9%. December also marked the second month in a row for market share losses for Microsoft's Windows operating system, while Apple's Mac OS X rose to about a 10% share. Net Applications found that in December 2008, 88.7% browsed the Internet using Windows machines, a drop of 0.94%. November and December totaled a 1.8% drop for Windows, and the entire year shows a drop of 3.1%. Apple's share increased over November and December by 1.4 percentage points, and its annual growth rate totaled 31.7%.

Google Lays Off Temp Workers, Contractors

In an effort to scale back on operating costs, Google has cut the number of temporary workers and contractors it employs—a move the company predicted last fall. According to Michael Liedtke of the Associated Press, Google made a filing with the Securities and Exchange Commission on Dec. 15 that indicated a reduction in temporary workers and contractors. According to the same AP report, part of the filing is still confidential due to the inclusion of Google trade secrets. Though many of the details are unclear as yet, the filing does include information that Google currently has about 24,000 employees, including 4,300 contractors, temporary workers, and interns—a figure that differs greatly from the 10,000 temporary employees estimated by Google co-founder Sergey Brin in October.

Google Phone Gives HTC A Boost

Thanks to the T-Mobile G1, mobile phone maker HTC has seen an increase in revenue. Prior to the success it saw from the T-Mobile G1, which features Google's Android mobile platform, HTC was relatively quiet in the mobile phone industry; however, filings from 2008's fourth quarter paint a different picture. HTC earned about $1.4 billion, which is 22% more than its Q4 2007 earnings. Overall, the company reported more than $4.6 billion in revenue for 2008, with $870 million in net profit. In addition to the G1 and its Android platform, HTC has manufactured several successful phones with the Windows Mobile platform, including its popular Touch smartphone.

Information Management: Reduce, Reuse & Recycle

Applying The Three R's To Your Storage Needs

by George Crump

• • •

Reduce, reuse, and recycle is a common battle cry for those who want a greener world. This same call is now quite commonly being applied within corporations with regards to the management of the ever-growing expanse of corporate information. Just as there is the need for both corporate and individual responsibility to reduce waste and pollution, a truly green content management strategy needs to be addressed at the highest strategic levels of corporate architectural decision, as well as deep within individual technical implementations. The good news is that there is plenty of room at all levels to reduce, reuse, and recycle content that will ultimately result in reduced operational costs, an improved operational process, and a reduced carbon footprint.

"C-level executives are now recognizing the business drivers for managing information as a strategic asset to improve operational efficiency, promote transparency, and enable business insight. Without an Enterprise Information Architecture (EIA), information will continue to add cost (increased demands for storage), complexity (silos), and risk (compliance). Proper alignment into a unified information infrastructure can resolve many of the challenges," says Debra Logan, vice president and distinguished analyst at Gartner.

"There are three specific reasons why this is the right moment for IT professionals to invest heavily in the development and implementation of enterprise information architectures," says Stuart Butts, chairman and CEO, Xenos Group (www.xenos.com). Butts explains that first, enterprises need to address the IT challenges typically associated with divestitures, mergers, and acquisitions. Second, they need to address the strategic challenge of managing the explosive growth of structured and unstructured data and documents. Third, they need to require pervasive information access with efficient and effective communications while reducing their carbon footprints.

"An electronic information system is not inherently green. Its relative 'green-ness' depends on how it is designed and used and what it replaces," says Butts. "We believe that agile, adaptive, and powerful enterprise information solutions are the key ingredient empowering IT professionals to apply the 'reduce, reuse, and recycle' concepts to information resources and that the benefits will be enormous from both an environmental and business perspective."

Increased Consolidation

One opportunity is to consolidate the many traditional information systems that have been implemented as islands onto themselves, each creating their own data store and outputting content preformatted for a single line of business use or distribution channel. While the paperless office has been dreamt about for decades, many times this output is still paper-based. In order to integrate information between disparate systems, low-level techniques are often employed, such as scanning or manual rekeying, with the end result being duplication of data, duplication of storage, and loss of productivity. Even if the output has been modernized electronically, often this output is in incompatible formats, making it difficult to achieve the benefits associated with corporate integration and consolidation.

If these islands of information can be consolidated into a single enterprise information system, then IT can realize far-reaching benefits beyond those fulfilling the paperless office dreams. By combining these various information outputs into a single storage archive, redundant data can be identified and eliminated. This allows for not only the green savings of the paperless office but also the reduction of the physical assets required to make that reduction possible.

Obviously, massive savings can be gained by implementing strong corporate information architectures and consolidating redundant enterprise document archives. Significant additional savings can also be gained through the application of technology within individual ECM solutions. Massive storage reduction can be achieved within contemporary ECM solutions far beyond that offered by typical data compression schemas by applying techniques such as document resource optimization.

Increased Optimization

Document resource optimization can be achieved by applying deduplication techniques involving the identification, removal, and management of duplicate objects across a given set. The unique data elements of a document are separated from the repetitive resources and stored within the ECM system. The resource objects for the whole set are only stored once, and when the document is called for viewing, the data and resources are combined together on the fly, providing a 100% accurate, high-fidelity copy of the original document in any format the consumer requires. This technique results in tremendous savings in the overall storage requirement for any document set—especially today's highly composed, high-volume print output.

For example, when many credit card companies send out a statement to their customers, they often include some form of advertisement within the statement itself. This often is an image of an advertised item. That image is the same across potentially hundreds of thousands of statements, each stored individually into the central ECM application. Storing all of these statements and making them readily available to internal stakeholders and external customers is very valuable for customer service and retention. By identifying that the same image exists on every statement and only storing one instance of that image, you can reduce the physical storage footprint for that statement significantly.

Increased Efficiency

As IT budgets continue to come under increased scrutiny, staff will be reduced,

Go to Page 20

Tips To Reduce, Reuse & Recycle

Reduce storage demands.

- Store native print streams
- Transform on demand to more readable formats, such as PDF, for delivery to stakeholders

Eliminate duplication.

- Implement a "resource versioning" strategy, eliminating repetitive content resources such as logos, fonts, and overlays.
- Use embedded links or pointers to common content resources
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Web-Based Malware

Is Your Enterprise At Risk?

by Joe Rudich

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Security administrators responsible for protecting the information and system resources of their SMEs will find little surprise (and even less comfort) in news that the number of computer viruses discovered, as well as the number of systems infected, increased in 2008 over years past. This continued growth in threats every year is unfortunate but has come to be expected. What may be a surprise is that, according to new research by ScanSafe (www.scansafe.com), the past year has seen a dramatic growth in virus attacks that were targeted at Web sites and specific industries and corporations.

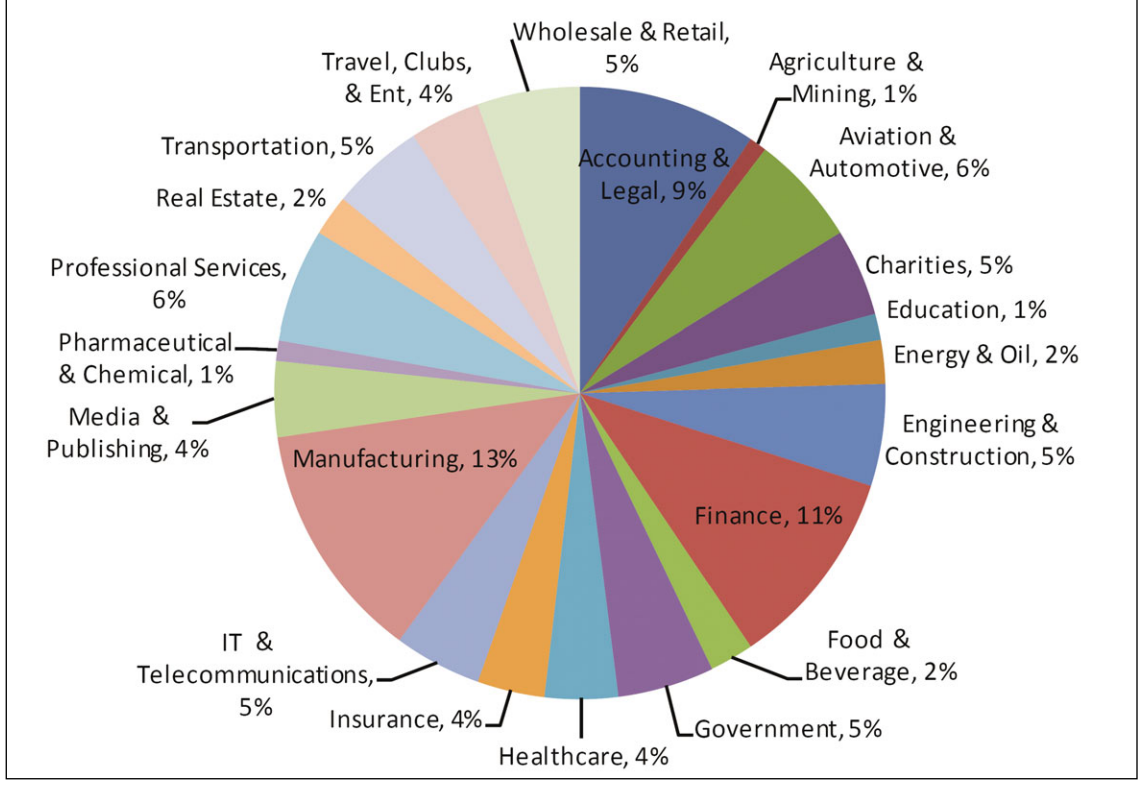
"For a long time, the majority of compromised Web sites were considered 'fringe sites': hacking information, porn, gaming sites—the kind of sites that business users could avoid, or at least be encouraged to avoid, visiting," according to Mary Landesman, a senior security researcher at ScanSafe. "In 2008, malware infection has originated from many sites which people visit legitimately, and which are actually part of their business operation, but have been hacked to deliver malware."

The report, "The Vertical Risk: Web-Delivered Malware by Industry" (available at www.scansafe.com/resources/white_papers) describes a sheer increase in Web-delivered malware that is staggering. ScanSafe's research showed the volume of Web-delivered malware increased 338% in the third quarter of 2008 compared to the first quarter of 2008 and 553% over the fourth quarter of 2007. Other industry experts agreed with the growth reported, as well as the change to specifically targeted attacks.

"Web-delivered malware is a rapidly growing threat and the preferred attack methodology for today's sophisticated attacks," agrees Tim Roddy, senior director of Web and mail product marketing at McAfee (www.mcafee.com/us). "These attacks usually are part of a blended attack where the goal is to get the user to click on a Web link on a legitimate site. We see 80% of malware exploits are now Web application exploits."

To further examine the nature of viruses delivered via the Internet, ScanSafe categorized attacks by the types of industries affected shown in the graphic above of overall infection rates from ScanSafe's report. Past measurements of this type typically showed infection rates that correlated to the rate of Web usage by employees in each industry, reflecting the almost-random distribution of past viruses. The rates shown in 2008 did not match these expectations. "I was surprised at some of our results, because I expected infection rates would be higher in industries with higher browsing habits," admits Landesman. "The number of employees typically using the Web in the course of their jobs does vary between industries. However, we found instances where infection is higher in industries which would typically have lower browsing rates, indicating that these are being specifically targeted by developers of malware code."

Malware Attacks By Industry



This figure from ScanSafe's report displays the proportion of all blocked Web-based malware directed to specific industries. These rates show that certain industries are targeted by malware attacks more frequently than others.

Build A Better Defense

As viruses have changed to targeted attack methods, they have also become ever more sophisticated. Two changes that industry experts feel must be considered by security administrators are the infection of legitimate Web sites and the appearance of Web-based viruses that require no user interaction. Both of these developments mean that educating users may not work to avoid virus infection.

"Education should never be overlooked by an organization's IT and security staff, but with the increase in legitimate sites hacked to distribute malware, teaching users to stay away from suspect sites simply will not provide thorough defense," according to Landesman.

As McAfee's Roddy puts it, "You can't educate a user to protect against what they can't see. You can tell them not to link on strange-looking URLs, but if code loads into their browser on a Web 2.0-enabled site, they will never know it is happening."

To protect themselves against these ever-stronger attacks, SMEs must employ layers of anti-malware protection tools, including Web-specific protection. Landesman feels that Web-delivered malware is currently in the same position that email-delivered malware was in the late 1990s. "Desktop antivirus tools were not sufficient to catch all infected email, so organizations accepted that they needed a special layer of defense specifically to scan email for viruses. IT and security organizations now need to accept that the same layered defense needs to be in place to protect against Web-delivered malware." P

What's In A Name?

The names used to identify computer viruses are usually cryptic and obscure to anyone who isn't employed in the antivirus industry. With dozens or even hundreds of related strains, the names that appear in detection reports tend to contain a collection of numbers or alphabetical characters intended to distinguish variants from one another. Virus.DOS.Game.544 is one of more than 1,000 distinct viruses in a malware "family." Worse, many viruses go by different, and not always similar, names within each antivirus detection system. Since Game.544 also goes by the alias of GAME-544, as well as Ungame.544, and even VGEN/32415.512, the name used is just an identifier and a formality—right?

To some antivirus professionals, the names typically applied to malware variants have become obstacles to malware control. "My pet peeve is that so many malware variants are given names like 'game thief,'" Mary Landesman, senior security researcher at ScanSafe (www.scansafe.com), says. "The way people view viruses has a lot to do with how they react to their threat."

Because many viruses are initially unleashed on online gaming sites, a large number of them naturally have names containing the word "game" or "play." "This leads people to believe they are solely targeting game programs, which are usually themselves a business annoyance," suggests Landesman. "Administrators see a trojan infection with a name like gamethief-troj and think it is of little concern, because they expect it will threaten nothing more than an employee's password for World of Warcraft—which they aren't supposed to be playing on a company computer anyway."

However, such "game" viruses are not solely limited to infecting entertainment programs, explains Landesman. "In truth, these are general-purpose data capture tools, which can be used to gather information and data from any kind of system. Once infected, they 'phone home' to send system info to the malware's originator and can be used to upload customizable configuration files, tamper with data, and launch ARP poisoning or other attacks."

The process of naming viruses has no standard system or centralized control; for example, the Code Red worm was named after a favorite soft drink of the researchers who first discovered it. So there is currently no plan to change the process—but Landesman, for one, thinks there should be. "At a minimum, this is a barrier to people accepting the seriousness of these risks, especially if it makes administrators think some viruses only affect people—like gamers—who put themselves at undue risk."

News

Mobile Phone Market Reflects Global Economy

Since 2001, annual mobile phone distribution hasn't slumped noticeably. However, in 2009 mobile phone shipments are expected to decrease by 1.9%, according to a recent report released by IDC. Before global volumes drop as anticipated this year, IDC projects that international growth will top out at 7.1% growth for 2008 compared to 2007.

While manufacturers and carriers are feeling the pinch, there is still a bright spot at the end of the digital tunnel—smartphones. The popularity of converged mobile devices is likely to increase by 8.9% around the globe this year. As price points of smartphones continue to drop, the mobile sector will grow, while the global market suffers. According to findings from Gartner, enterprise mobile phones will surpass the number of landline desktop phones in the next three years.

According to Philip Redman, research vice president for Gartner, small to medium-sized enterprises can prepare for the development of telecommunications by enhancing overall phone policies, efficiently managing wireless service, and assessing the impact of mobile unified communications. Currently, 4% of enterprise mobile users only utilize a mobile phone; that number is expected to rise to 23% by 2012. Even so, many users will continue to use both desk phones and mobile devices due to slow-progressing wireless integration within many enterprises.

William Stofega, IDC program manager for mobile device technology and trends, says there are undoubtedly challenges to completely wiping out the desktop phone. Because the mobile marketplace is weak at every corner, "we're seeing . . . the overall picture for mobile phones is a picture that reflects the overall economy," says Stofega. "From a small business perspective, they're challenged with banks that don't want to give out loans anymore, [and] that's problematic."



Although this type of issue does affect many SMEs, smartphones will prove to be a relevant mobile platform designed to give end users more freedom within an enterprise. "What people should expect in terms of the service of the handset component from an enterprise perspective: more applications, more powerful handsets, and, more importantly, I think there's going to be greater integration with the existing enterprise information infrastructure," Stofega says.

Further, Stofega notes that applications for command, speech, and maps may be critical for any enterprise to sustain business communications in the near future. "If you're a small businessman that has to travel to visit your suppliers, having that mapping capability is going to be really interesting and helpful," says Stofega. "We may be able to start to figure out a way to present the information on a mobile handset in a better way so it integrates quickly with a desktop PC."

by Joanna Safford

Cloud & Virtualized Systems

Development & Testing Challenges

by Kurt Marko

• • •

THE CONSENSUS FORECAST for cloud computing is definitely sunny, but the term's definition is still a bit hazy. "The cloud" has enough ambiguity that it can mean dramatically different things to different people. For some, the cloud is just the latest overhyped label for hosted servers, albeit virtualized and more readily available. These skeptics view the cloud from the paradigm of traditional client-server computing, seeing it as just a way to quickly provision and decommission systems with precisely specified performance characteristics.

After several years of hype, cloud computing is poised to make the jump from vaporware vision to mainstream IT solution; however, moving enterprise applications to the cloud is anything but a turnkey process. Although the cloud offers enterprises cost-effective access to previously unimagined computational power and storage capacity, along with the adaptability to scale with changing loads, its effective use requires careful attention to application architecture, new testing paradigms, and a reliable, secure service provider.

Using The Cloud

Steve Brodie, chief product and marketing officer for Skytap (www.skytap.com), says that the fundamental question cloud customers must answer is, "What type of cloud solution are you looking for?" Some solutions offer hardware resources provisioned in traditional and familiar quanta of servers, memory, and bandwidth, while others abstract the actual hardware details, substituting them with capability and usage measures. The former model, which is essentially a massive, utility-like extension of server virtualization, is known as IaaS (infrastructure as a service), while the latter increasingly goes by the term PaaS (platform as a service).

Brodie notes that IaaS services, which provide a virtualized run-time OS environment, are better for hosting existing applications with few or no modifications, while the pure cloud-as-a-platform solutions require more significant application porting or even wholesale redesign. Applications that fully exploit the advantages of cloud infrastructure typically adopt an SOA (service-oriented architecture). Yet Tom Lounibos, president and CEO of cloud application-testing vendor Soasta (www.soasta.com), notes that cloud platform APIs are usually proprietary, locking developers into a specific vendor and application architecture.

Some vendors have built software that bridges the gap between raw virtualized infrastructure and cloud platforms. Sam Charrington, VP of product management and marketing at Appistry (www.appistry.com), says that these solutions allow existing applications to run on virtually any IaaS service with minimal modifications while gaining most of the advantages of native cloud services, such as elastic scalability, fault tolerance, utility-based pricing, and deployment agility.

Cloud Application Testing

Developers face dual testing challenges once an application has been morphed into a service and moved to the cloud: First, they must validate the performance and service levels of the cloud provider; then, they must verify end-to-end program functionality from the cloud to often widely dispersed end users.

According to consultant David Linthicum of the Linthicum Group, "When testing Web services, you have to think about a few things, including autonomy, integration, granularity, stability, and performance, in the particular order of your requirements."

A challenge in testing cloud-based applications is the difficulty of replicating the number, diversity, and geographic distribution of the clients. There are two strategies for solving this problem: behavioral simulation and synthetic virtualized test environments. Chris Kraus, product manager at iTKO (www.itko.com), advocates functional and load simulation of the application and cloud service.

"You want something that looks enough like the cloud for your test purposes," he says. These simulations can monitor the cloud vendors' performance and service levels, but Kraus stresses that verification must be done regularly, if not continuously, to ensure vendors meet uptime requirements and performance levels under all conditions.

An alternative to behavioral simulation is the use of virtual client systems; however, it's difficult to quickly and efficiently generate enough client load to adequately test Web-based applications. The cloud can solve a problem of its own making by dynamically provisioning test systems. Yet a cloud of virtual test clients still needs software to orchestrate, record, and analyze the testing.

A final piece in the cloud application development and deployment puzzle involves evaluating service providers. Lounibos feels that the most important criteria to consider when looking at cloud infrastructure providers are accessibility, availability, and affordability. The cloud infrastructure must be easy to access from a corporate LAN, have tools for usage monitoring, and offer a straightforward process for provisioning new servers or compute resources. He adds that service availability should be evaluated on uptime and scalability. Customers need assurance that a vendor can supply adequate compute capacity and can rapidly adapt to dynamic loads. P

Testing Cloud-Based Web Applications Or Services

Before you invest resources in the cloud, it's important to set your priorities and determine which features are most important to your enterprise. Weigh each of the following according to your enterprise's needs.

- **Autonomy** determines how the service functions on its own, including any dependencies that may be present.
- **Integration testing** is required to see how the service works when leveraged by other systems, systems that perhaps are known or unknown at the time of development.
- **Granularity testing** determines if the service was created with too much of a coarse- or fine-grain leaning, which has an effect on performance and the value of a service.
- **Stability testing** insures that the services built won't fall down at the worst of times. This is usually simple regression testing, with some integration testing here, as well.
- **Performance testing** is just what you would expect: the ability to determine if the services can handle many simultaneous requests, and any special architecture that may be required to insure good performance, such as load balancing with transactions.

SOURCE: "SOA SERVICE DEPLOYMENT"; WHITE PAPER BY DAVID S. LINTHICUM; WWW.LINTHICUMGROUP.COM/SOA_SERVICE_DEPLOYMENT.PDF; NOVEMBER 2006

Cloud Infrastructure vs. Cloud Platform

Two classes of cloud computing services have emerged, distinguished by the level of abstraction offered by the cloud environment. One focuses on providing raw, virtualized infrastructure, while the other centers on higher-level application services.

Infrastructure-oriented approaches to cloud, known as IaaS (infrastructure as a service), seek simply to provide access to virtualized computing resources in an on-demand manner. Platform-oriented approaches to the cloud, or PaaS (platform as a service), are distinguished by the higher level of abstraction they provide, as well as the supporting services they make available to the applications that run on them. At the top of the hierarchy, applications make use of platform and infrastructure services.

SOURCE: "UNLOCKING THE PROMISE OF CLOUD COMPUTING FOR THE ENTERPRISE: ACHIEVING SCALABILITY, AGILITY, AND RELIABILITY WITH CLOUD APPLICATION PLATFORMS"; APPISTRY (WWW.APPISTRY.COM) WHITE PAPER; 2008.

Information Management: Reduce, Reuse & Recycle

Continued from Page 18

and remaining personnel will be stretched even thinner than before. Complexity needs to be driven out of the data center as much as possible. Enterprise-level information solutions accomplish this by eliminating the disparate silos of information. Siloed architectures not only increase complexity but also increase corporate risk, as well as the cost of managing that risk. Data that is related from a compliance perspective is often stored on these disconnected solutions, and each has to be maintained and monitored for compliance adherence. This increases exposure and makes response to information requests more difficult.

An overall enterprise information handling solution should be capable of dealing with the avalanche of a wide variety of data and documents flowing into, between, and from contemporary, centralized ECM systems. It should target specific pain points, such as overall storage footprint, deliver massive hard cost ROI, improve organizational performance, and address the demands of green IT initiatives within today's organizations. P

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How To

Evaluate & Test A New Operating System

Companies Have Much To Consider When Choosing A New System

by Jean Thilmany

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Which operating system is best for your information technology center? The open-source Linux? The fairly standard Windows workhorse? Or another system? The answer is easy. None of the above.

"I have to admit, when it comes to operating systems, they're really nothing special regardless of whether you use Linux, Unix, Windows, or whatever," says Stephan Müller, senior consultant at Atsec Information Security (www.atsec.com). "The operating system isn't really of relevance—it simply provides you with a means to run applications on a hardware box."

That being said, what should you look for when evaluating server or desktop systems for your business? Müller and others offer a number of criteria to look at when considering an OS for your company.

Where To Begin?

First things first, you'll want to look at the type of applications and the architecture your company uses, says George Weiss, analyst and vice president at IT analysis firm Gartner.

"The decision here will be skewed toward one vendor and platform and technology or another depending on what the context is," he says. "It depends on whether you want the system for basic business plumbing or high-performance and mission-critical applications."

Think of what primary tasks the OS will be called upon to support, whether those are virtualization or Web management, and then match the OS to the tasks.

"So, identify the user segments that will benefit most from the new migration, create a pilot program, ensure success, and then gradually roll out to other parts of the organization," says Weiss.

In that same vein, Müller says companies should assess the know-how that exists on their staff—both IT staff and within the employee pool in general—when deciding on a new system.

"If IT administrators already know Linux, why go with AIX? Then you're looking at the burden of training administrators again," he says.

The knowledge issue is wider than simple training. It extends into security measures, as well. If IT personnel have mastered a particular OS, then they already know how to make it secure against hackers. That particular know-how doesn't necessarily extend to a new system, Müller says.

Although it's true the systems today contain default security configurations, when it comes time to add more software or otherwise tinker with the system, IT staff may inadvertently reconfigure the OS to be less than secure, he adds.

"You have to know what you're doing when you're hardening the system, which files to configure, and what the configurations imply," Müller says. "It's sometimes hard to understand why you have to do the configuration if you don't know the functionality of the system."

If employees are used to working with a particular system, a change to a new system can drastically lower productivity for a time, he cautions.

Those enterprises that do take on a new OS must consider training costs—for IT staff and all employees who will use the system—when looking at costs, Müller says.

But costs for training and education can add up, cautions Grant Ho, senior product marketing manager for SUSE Linux Enterprise Desktop at Novell (www.novell.com). He suggests looking for free sessions and downloads.

One of the most important things to remember is that a company should pursue OS migrations in phases, not in an all-or-nothing manner, Ho says.

Beyond The License

Think outside the box, literally, when it comes to OSes, says Bill Horne, systems architect at William Warren Consulting.

"If you're deciding on an operating system for all aspects of a business, then you don't have to worry about the interoperability of the already existing legacy systems you'll be replacing," Horne says.

Companies that have older hardware that will still need support should look to an open-source system such as GNU/Linux, FreeBSD, or OpenBSD, Horne says.

When he works with companies, Horne says he reminds the ones using licensed systems to remember to factor in licensing costs, which often increase every year.

Across The Board

Weiss says it is important to also think standardization when choosing an OS for your data center. As the industry consolidates and fewer OS vendors exist, consolidating on a single system is easier than in years past (when more competitors vied for the IT dollar), and it is more economically feasible, he says.

"The costs to the data center escalate with the number and combination of system configurations managers need to maintain and support over the life of their applications," Weiss adds.

He echoes Müller in saying that one standard OS lets IT staff be fully trained on the ins and outs of that system. It also streamlines and strengthens the vendor relationship and ensures upgrades happen in an on-time and efficient manner.

The OS shouldn't lead a standardization effort, Weiss says. Approach vendors only after meeting internally to ensure executives and IT staff seek the same OS features.

"You'll want a set policy and an architecture committee to determine which OS will be the standardized system," Weiss says.

That being said, the OS decision should be driven by cost in addition to other factors, such as which system can best run a company's applications, he adds.

John Locke, manager of Freelock Computing (www.freelock.com), reminds IT managers to plan ahead before deciding upon a standard server system.

"The No. 1 reason we found that small to midsized businesses wouldn't consider Linux or Mac until recently was QuickBooks," Locke says. "QuickBooks is the *de facto* standard accounting application for these businesses, and while there are some great alternatives to QuickBooks, the challenge is finding an accountant or bookkeeper who will do your books in those programs."

As bookkeepers and accountants become more familiar with other packages, a company may consider Linux or Mac systems, he says.

Ho offers time-honored advice that can't be repeated often enough: "Once you implement the operating system test, test, and test," he says.

Load all applications to determine how they operate on the new OS.

"It's important to test everything multiple times, including third-party products like backup solutions, before full deployment," Locke says.

Then, run a performance test to see how quickly the system works and what it can handle. IT staff should push the OS to the limits of what they think it can do in terms of performance and speed. In this way, they can anticipate what the new OS can handle, and they'll know when limits are nearly reached, Locke says.

Managers must compare performance results to what was expected from the new OS to ensure it meets projections. If not, they'll need to reconsider their projection-setting method, he adds.

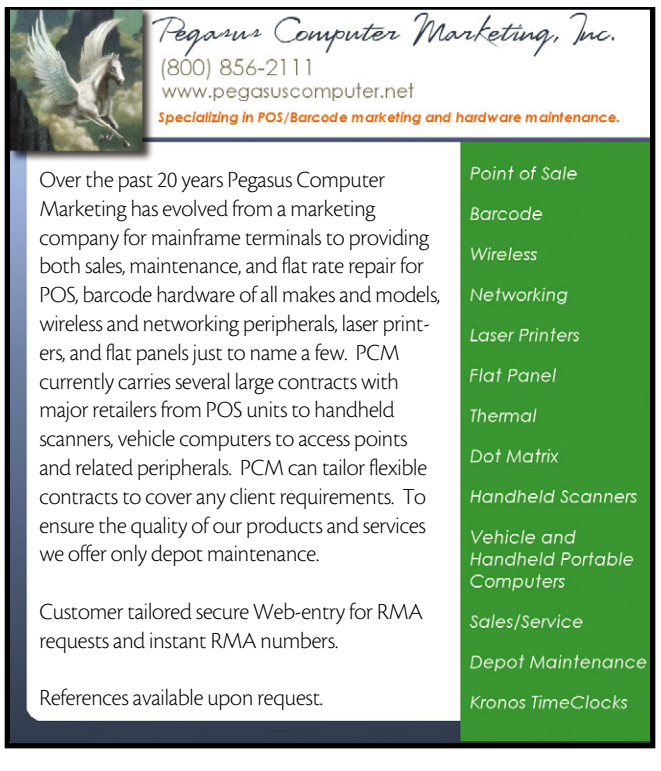
Then, sit back and enjoy the new OS.

Key Points

- There is no one perfect operating system. An OS is simply a system that runs a company's hardware and applications, so needs will vary by company.
- Standardize the entire company on one OS and choose an OS that won't require a lot of staff training. Also, after implementing a new OS, you should expect a period of time in which productivity lags as users become familiar with the system.

TOP TIPS

- Consider your knowledge base. Bringing in a new OS can temporarily cut employee productivity and will make for training costs.
- Assess the tasks your OS will need to support. A system needed to run virtualization applications may differ from one running basic business functions.
- Ensure your necessary business applications will run on the new system.







SIX QUICK TIPS

Antivirus Analysis

How To Choose The Right Antivirus Tool For Your SME

by Christian Perry

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To combat a Trojan horse, the Trojans had only one reasonable defense: Keep the massive wooden doors to Troy closed. But to combat Trojans and similar threats today, security personnel have a multitude of options, such that choosing the appropriate defense for a particular environment can be a delicate task.

"Data centers provide a nexus point for the connection of data to a data center," says Steven Shepard, president of Shepard Communications Group (www.shepardcomm.com). "As a consequence, they must, by their very nature, be intentionally vulnerable since the only truly secure data center is one that offers no access to its users. Of course, this kind of center is largely useless. Consequently, data center managers must strike a balance between offering users the appropriate levels of access to data center resources while at the same time prudently restricting access."

Results Are Best When You Test

According to Mike Boyer, vice president of information technology for Fiberlink Communications (www.fiberlink.com), IT managers must evaluate the integration provided for their organizations' enterprise management and monitoring infrastructures.

"Test, test, test. Do a trial test bed including the major flavors of operating systems and key applications to ensure no incompatibilities with backups, open file agents, resource contention, or run-always. Test to ensure that you have no issues, ensuring environmental and version consistency throughout," Boyer says.

Boyer adds that the same level of idiosyncrasy or unexpected interaction that is seemingly acceptable on desktops and laptops cannot be tolerated on servers. As such, IT administrators need to be sensitive to interoperability with major applications; have specific control over the performance and resources allocated to antivirus scans and updates; and ensure consistent control over versioning, centralized management, and alerting that is critical for management.

The basic elements that IT managers need to watch for in antivirus tests are system performance, degradation, and high CPU and memory utilization, says Fiberlink Security Officer David Lingenfelter.

"Specifically, when testing antivirus tools, examine how and when it scans files—find out if it runs full scans, segment-by-segment scans, and/or ad hoc scans. Additionally, look at how much impact the antivirus tool will have on performance. Test updates to the AV client from different configurations—remote, local, wired, wireless, dial, etc. Does the AV client update the same way through each protocol? Do a bake-off between vendors. Even go so far—if you have the experience—as testing each vendor's effectiveness at detecting different types of viruses, Trojans, and malware," Lingenfelter says.

Be Inquisitive

When selecting the perfect antivirus product for your environment, it's essential to ask questions that both define that environment and identify the right solution. Dave Wreski, CEO of Guardian Digital (www.guardiandigital.com), notes that research such as this is important because the recovery cost of only one virus that spreads across the network can pay for a well-designed antivirus implementation.

"Will it fit seamlessly into my existing network? How secure is the product I am buying to protect my data? What type of virus engine is protecting my network? What are the hard numbers I can expect as far as catching threats and vulnerabilities—99%? 97%? How much will it cost?" Wreski says.

Wreski also recommends that potential buyers examine whether the antivirus tool is open-source or closed, how secure the platform is on which the antivirus tool is running, and what the support options provided by the vendor are.

Look Beyond Pure Viruses

Sure, it might claim to be an "antivirus" tool, but an antivirus solution should also handle a wealth of other intrusions. Hongwen Zhang, CTO of Wedge Networks (www.wedgenetworks.com), says that one of Wedge's customers reports that DDoS (distributed denial of service) and injection-based attacks represent 10% of its traffic, and that number can be higher during major public events. Exploits such as cross-site scripting and SQL injections, while primarily being HTTP-based, require processing beyond typical signature matching, such as deep content regular expression matching.

Crave Information

Being secure is surely a necessity, but today's data center personnel depend on information to make effective security-related decisions. Shepard explains that it isn't enough to simply have a good antivirus tool because the tool is only as good as the information it provides to the data center manager.

"Managers, after all, manage, which requires good data if the job is to be done effectively," he says. "That data comes in the form of reports that can be used to proactively anticipate and respond to threats against data center resources. . . . Reports can be created that yield intelligence about event trends or that identify information that can be used to identify the source of intrusive events. However, this information has no value unless a proactive manager uses it to create counterintelligence."

When selecting an antivirus tool, managers should ensure that the product offers reporting capabilities—particularly, customizable reporting capability, Shepard says. The more data that the tool provides, the better it will serve as a tool for countering intrusions in the data center. P

BONUS TIPS

■ **Develop your selection criteria.** Most data centers will not compromise network stability and performance as a guideline, explains Wedge Networks' (www.wedgenetworks.com) CTO Hongwen Zhang. "Develop a weighting system to capture these and your other ancillary requirements and measure each of the selected offerings against it. This useful exercise might end up surprising you. For example, your final selection might favor an engine that has higher false positives but a better performance, speed-wise," Zhang says.

■ **Get technical.** It's important to try to understand how an antivirus tool handles different file types (for example, how it handles packed binaries), Zhang says. An understanding of other technical aspects is similarly valuable. "How does it handle potential sequence of events (for example, a packed binary loading a malicious JavaScript code)? How does it execute (for example, is it possible for a virus to disable it)? How does it handle zero-day exploits? How does it handle large file sizes? How does it handle concurrency?" Zhang says.

Best Return On Investment:

Do Your Research

David Brown, managing consultant at Forsythe (www.forsythe.com), says that choosing an antivirus solution is no different from any other major purchase. As a result, research is critical.

"Contact peer organizations or security-focused groups in your area to ask for opinions and experiences," Brown says. "Most security professionals are more than willing to share their background and offer advice. It is important to differentiate vendor marketing from valuable and unbiased opinions."

Wedge Networks' (www.wedgenetworks.com) CTO Hongwen Zhang agrees, noting that managers need to understand what vendors have to offer by going beyond the marketing hype and simple test results that sometimes do not indicate much. Further, he recommends reading security publications, reading testing sites, and asking other users through forums or user groups.

Biggest Timesaver:

Think Easy To Use

As viruses and their ilk grow increasingly complex and continue to spread across disparate platforms, antivirus solutions are likewise becoming more intricate. But an intricate solution isn't always the best solution, explains Steven Shepard, president of Shepard Communications Group (www.shepardcomm.com).

"Because your users play an active 'frontline' role in data center defense, select a tool that is not overly onerous to deploy and use at the end-user level," Shepard says. "Remember that the world's best antivirus tool, if difficult to use, rapidly becomes the world's worst antivirus tool if users choose to avoid using it."





WHAT'S HAPPENING

Maintaining Legacy Equipment

IGS Systems Serves SMEs That Aren't Quite Ready To Upgrade

by Holly Dolezalek

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WHEN IT COMES TO FINDING new business niches, many innovators get stuck on the word "new." They're looking for the next big thing or wide open space where nobody is competing. But some companies find just the right niche in areas where the crowd has already passed on.

Take, for example, computer hardware. So many companies are competing to bring new products to market, from servers to RAID arrays to disk drives, that it's easy to forget that not everybody is ready for them yet. There are enterprises all over the world that are using legacy products from manufacturers that are long gone or that have been absorbed by other companies. Plenty of data centers still use those legacy products, and when they go down or need parts replaced, they have to be able to get replacements.

Meeting The Need

Supplying parts for legacy equipment is the niche that IGS Systems has occupied since it was founded in 1990. Located in Plymouth, Mass., privately owned IGS Systems (508/866-1171; www.decparts.com) is the largest stocking supplier of legacy products for DEC, Compaq, Alpha Systems, and VAX systems, supplying everything from memory, storage, and processors to the cables and printers that work with those systems.

IGS became the key reactive supplier for field service for DEC in 1995. DEC was later acquired by Compaq, which in turn merged with HP. But throughout those changes, IGS has maintained that field supplier role with the company to this day, providing field service to HP customers.

IGS also has relationships with many entities in the U.S. government, especially with contractors such as steel, automotive, and aerospace companies that do business with the government. "We've got a big footprint in the government space," says Bobby Ahearn, CEO of IGS.

When a system or computer part goes down, customers call IGS, which then searches its database of more than 10,000 parts from various manufacturers to find the system or part. The company's technicians ship it to the site, test it, and install it. "For example, right now I have a company the size of Home Depot that's looking for a 5-year-old power supply," Ahearn says.

IGS technicians also do component-level repairs for the computer industry, for which the company draws on an inventory of diodes, chips, resisters, and other parts that make up the end product.

Although IGS' main business is in North America, it has also developed contracts with customers worldwide, mostly in Europe. "We're sourced all over the world, and we ship worldwide," Ahearn says. The ratio of North American to worldwide business still favors North America, but about 35% of IGS' business comes from outside the United States.

Edging The Competition

There are other competitors in the legacy products industry, but IGS' main edge in the industry is twofold: its formidable, long-term expertise in finding the products its customers need and its testing center.

The company resides in two buildings of about 35,000 square feet at the airport in Plymouth. There are 14 employees, several of whom are engineers who work in the company's multimillion-dollar test center testing the equipment that IGS is going to sell to its customers. "When you're working with used, reconditioned, or refurbished product but you don't have a test bay to make sure the CPU works, you can't know whether you've got a viable replacement or a piece of junk," Ahearn says. "Maintaining that testing center and the highly skilled technical staff is a big expense for us, and we have to do it, but sometimes it's hard for the customer to tell the difference between us and a business that just has 100 feet of office space and no testing ability."

IGS' biggest challenge is working in what some could consider a dying industry. Many companies stick with their legacy equipment for years because they don't want to go to the trouble and expense of upgrading to new systems and software. But at some point, they all do, and every time a company does that, IGS is out a customer. "We've developed core relationships with end users, and they rely on us, but we've had many customers move off of their older technology platforms to the PC world," Ahearn says. "That happens a lot, because the PCs of today have the computing power of whole systems that sold 10 years ago. But for some companies, migrating to a PC environment would be an enormous expense, so they stay with their legacy products."



Although the company has customers with whom it's had relationships for years, its new customers tend to be one-offs. IGS gets five to six requests a week for replacement parts or equipment, but often the purchase is only a temporary fix until the company is ready to migrate to a new platform.

Staying The Course

Looking ahead, IGS' goals for the long and the short terms are not to acquire new companies, build new space, or break into new markets; the company simply aims to maintain its current customer base. "We've maxed out on what we're going to be able to do, and we've been approached repeatedly to be acquired, but we've resisted it," Ahearn says. "This just isn't a growth industry." For a time, he explains, there were 30 to 40 companies doing this sort of thing, and then there were 300 to 400. But Ahearn predicts major market consolidation and says it's likely that in two to three years, there will be fewer than 100 companies that do this kind of work.

Ahearn explains that the market for what his company does will shrink slowly over the coming years, but for a positive reason: The technology industry continues to get better at what it does, and innovation is happening at a fast pace. "Today, manufacturers have gotten better at making products that don't break, but capacity and capability improve so fast that products have a usable life span of one to two years instead of five to 10," Ahearn says. "But for those who aren't ready to upgrade just yet, we still have the ability to source and test product that's 20 to 30 years old. As long as someone wants that kind of product, we'll be here." P

THREE QUESTIONS

Lock It Down

Privaris' Access Control Solutions Help Protect Your Enterprise From Breaches

by Julie Sartain

PRIVARIS, LOCATED IN CHARLOTTESVILLE, VA., was founded in 2001 and is a leading provider of multifunction, wireless biometric applications and identity verification solutions for physical and logical access control. In July 2007, Privaris (434/293-4033; www.privaris.com) introduced its plusID products to the market.

John Petze, president and CEO of Privaris, spent six years as president and CEO of Tridium before joining the Privaris team in June 2006. A cum laude graduate of Worcester Polytechnic Institute, Petze has a strong technical background and extensive experience in marketing programs, customer support, and new product development in the areas of hardware and software development, automation systems, networking, and Internet technologies.

■ What are the biggest IT-related issues facing today's small to midsized enterprise?

"Security is a major concern," Petze says. "Just because you're not as big as an Amazon or Walmart doesn't mean you get a pass in the case of a security breach." Assessing risk and determining the most productive areas for security investment should be a primary concern for all enterprises, he adds. Within the security landscape, the issues of access control and verifying the identity of users as they enter restricted areas, access sensitive data, or approve significant transactions are crucial challenges that all companies face.

■ What should *Processor* readers know about your company's products?

Privaris focuses on helping companies address the challenge of providing "proof-positive" identity verification for both physical access (doors and gates) and logical access (computers, networks, and applications). Reliable identity verification reduces the risk of intrusion, theft, insider misconduct, and regulatory violations. "Our product, the plusID identity token, is a simple, secure identity verification solution that works with both physical and logical access control systems," says Petze. The plusID personal token verifies user identities via fingerprint before releasing credentials for access. All biometric processing is performed on the device, which eliminates the need for back-end systems. Also, because it can hold multiple credentials, one plusID can replace multiple access cards, tokens, PINs, and passwords, simplifying the users' lives and significantly enhancing the security of your enterprise.

plusID works with existing systems, is out-of-the-box compatible with most physical access control and IT security systems (for simple and rapid integration), and is plug-and-play compatible with Windows through Microsoft's standard smart card services. In addition, it's compatible with most access control card readers, and the company has plans to add support for the RSA SecurID one-time password.

■ What makes your company unique?

Privaris pioneered the concept of "personal biometrics," which means biometric verification is achieved on a small personal device carried by the users, as opposed to the historical implementation of biometric security, which requires the costly installation of specialized reader systems on every door, gate, or computer that needs protection, Petze notes. "This is a fundamental shift in the use of biometrics and addresses many of the drawbacks associated with conventional approaches," he says.

According to Petze, plusID also works with existing infrastructure, which means gaining the benefits of biometric identity verification without the traditional costs and complexity associated with the implementation of biometric systems. In addition, plusID addresses the privacy concerns typically associated with using biometrics such as no biometric databases or back-end servers required.

"All fingerprint matching is performed on-device, a self-contained approach that eliminates the risk and expense of having to secure a database of employees' sensitive biometric data." And the personal approach to biometrics eliminates the hygiene concern encountered with fixed, mounted biometric readers, Petze adds.

"Because it provides positive, irrefutable identity verification, plusID can directly contribute to lower security risks and help satisfy regulatory and audit requirements. The resulting verifiable metrics are a key element in satisfying audit requirements for corporate and government regulations," Petze says.

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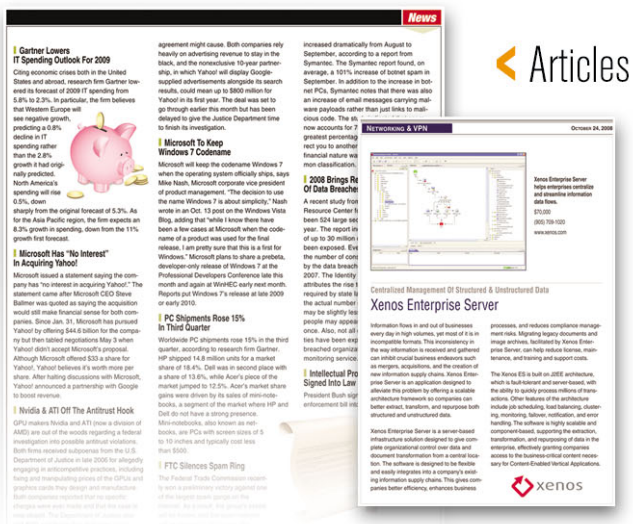
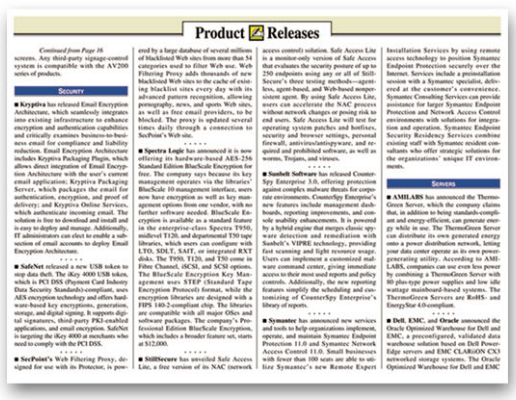
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